

Monthly Highlights

No. 3 / 2023

E U M O F A

European Market Observatory for
Fisheries and Aquaculture Products

In this issue

In December 2022, the “bivalves” commodity group (CG) registered the second highest first-sales value and fourth highest first-sales volume of the 10 CGs recorded .

From January 2020 to December 2022, the weighted average first-sales price of grooved carpet shell in Spain was 29,40 EUR/kg, 113% higher than in Italy (13,82 EUR/kg), and 155% higher than in Portugal (11,53 EUR/kg).

At the Electronic Recording and Reporting System (ERS) level, grooved carpet shell (3%) and smooth callista (3%) together accounted for 6% of total “bivalves” first-sales value recorded in December 2022.

According to the Food and Agriculture Organization (FAO), China accounted for 39% of the world’s aquaculture and fishery production in 2020, leading global production in aquaculture (57%) and fisheries (15%).

In 2021, ling first sales in reporting countries of the EU amounted to 6.344 tonnes at a value of around EUR 13 million and an average price of 2,06 EUR/kg.

During the period January 2020–December 2022, the average retail price of halibut sold fresh was 37,00 EUR/kg in Denmark, with a total amount of 242 tonnes sold.

On 4 March at the 5th Intergovernmental Conference in New York, global negotiations concluded on the landmark Treaty of the High Seas to protect the ocean.



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1. First sales in Europe

Between **January** and **December 2022**, 12 EU Member States (MS), Norway and the United Kingdom reported first-sales data for 10 commodity groups¹. First-sales data are based on sales notes and data collected from auction markets.

First-sales data analysed in this section, “*First sales in Europe*”, are extracted from EUMOFA², as collected from national administrations.

1.1. January–December 2022 compared to the same period in 2021

Increases in value and volume: France and Norway recorded increases due to higher supplies of scallop and squid in France, and of cod and saithe in Norway.

Decreases in value and volume: Bulgaria, Cyprus, Estonia, Latvia, Lithuania and the Netherlands recorded decreases. The most significant decreases were registered in Bulgaria and Lithuania. A decrease in first sales of clam and sprat was behind the decline in Bulgaria, while in Lithuania the decrease was mainly due to herring.

Table 1. **JANUARY – DECEMBER OVERVIEW OF FIRST SALES FROM THE REPORTING COUNTRIES**
(volume in tonnes and value in million EUR) *

Country	January – December 2020		January – December 2021		January – December 2022		Change from January – December 2022	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Bulgaria	2.600	1,8	4.012	2,9	1.946	1,4	-51%	-54%
Cyprus	817	3,3	848	3,8	661	3,2	-22%	-15%
Estonia	67.897	17,0	65.762	17,3	57.529	17,0	-13%	-2%
France	241.898	621,3	264.150	726,9	275.769	791,2	4%	9%
Germany	0	0,0	63.771	87,2	32.237	92,4	-49%	6%
Italy	88.101	329,6	87.024	365,3	82.288	371,9	-5%	2%
Latvia	48.549	9,9	46.642	10,0	43.853	9,2	-6%	-8%
Lithuania	2.422	1,0	2.676	1,1	792	0,6	-70%	-46%
Netherlands	244.336	358,1	219.237	335,6	217.441	255,2	-1%	-24%
Portugal	100.778	227,8	129.992	291,5	111.884	291,9	-14%	0%
Spain	508.294	1426,1	489.318	1528,7	456.473	1589,6	-7%	4%
Sweden	161.163	47,3	118.656	46,3	82.001	58,8	-31%	27%
Norway	2.907.134	2471,8	2.857.717	2668,9	2.887.174	3259,5	1%	22%
United Kingdom	295.087	552,7	329.463	633,5	310.180	658,0	-6%	4%

Possible discrepancies in % changes are due to rounding.

* Volumes are reported in net weight for EU Member States, and in live weight equivalent (LWE) for Norway. Prices are reported in EUR/kg (without VAT). For Norway, prices are reported in EUR/kg of live weight.

¹ Bivalves and other molluscs and aquatic invertebrates, cephalopods, crustaceans, flatfish, freshwater fish, groundfish, salmonids, small pelagics, tuna and tuna-like species and other marine fish.

² First-sales data updated on 17.02.2021.

1.2. December 2022 compared to December 2021

Increases in value and volume: First sales increased in Cyprus, France and Italy. Cyprus recorded the highest first sales increase due mainly to seabreams (other than gilthead seabream), while squid and scallop were behind the increase in France, and warmwater shrimp and clam behind the increase in Italy.

Decreases in value and volume: First sales decreased in Bulgaria, Latvia, Lithuania, the Netherlands, Portugal, Spain and Norway. Lithuania and Bulgaria recorded the sharpest drops in relative terms. This was due to decreased sales of herring and smelt in Lithuania, while in Bulgaria the main species responsible were clam and sprat.

Table 2. **DECEMBER OVERVIEW OF FIRST SALES FROM THE REPORTING COUNTRIES**
(volume in tonnes and value in million EUR) *

Country	December 2020		December 2021		December 2022		Change from December 2020	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Bulgaria	86	0,1	79	0,1	41	0,083	-48%	-43%
Cyprus	19	0,1	30	0,2	35	0,3	16%	31%
Estonia	7.872	1,6	6.926	1,4	5.564	1,6	-20%	12%
France	15.673	65,4	19.147	80,1	19.259	83,1	1%	4%
Germany	0	0,0	3.656	5,1	2.727	7,2	-25%	42%
Italy	6.582	27,8	6.648	32,7	7.128	34,4	7%	5%
Latvia	4.259	0,9	4.402	1,0	3.781	0,2	-14%	-79%
Lithuania	241	0,13	282	0,136	15	0,082	-95%	-40%
Netherlands	30.610	32,9	26.324	39,8	20.148	21,8	-23%	-45%
Portugal	3.511	13,0	4.293	18,0	3.590	14,7	-16%	-18%
Spain	28.725	124,7	27.912	138,6	27.063	124,2	-3%	-10%
Sweden	14.173	6,7	5.894	0,5	3.883	4,3	-34%	848%
Norway	99.007	103,6	92.039	147,9	75.710	110,2	-18%	-25%
United Kingdom	11.636	31,8	11.648	38,6	12.020	37,2	3%	-4%

Possible discrepancies in % changes are due to rounding.

** Volumes are reported in net weight for EU Member States and the UK, and in live weight equivalent (LWE) for Norway. Prices are reported in EUR/kg (without VAT). For Norway, prices are reported in EUR/kg of live weight.*

The most recent weekly first-sales data (up to week 10 of 2023) are available via the EUMOFA website and can be accessed [here](#).

The most recent monthly first-sales data for January 2023 are available via the EUMOFA website and can be accessed [here](#).

1.3. First sales in selected countries

First-sales data analysed in this section are extracted from EUMOFA³.

Table 3. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN BULGARIA**


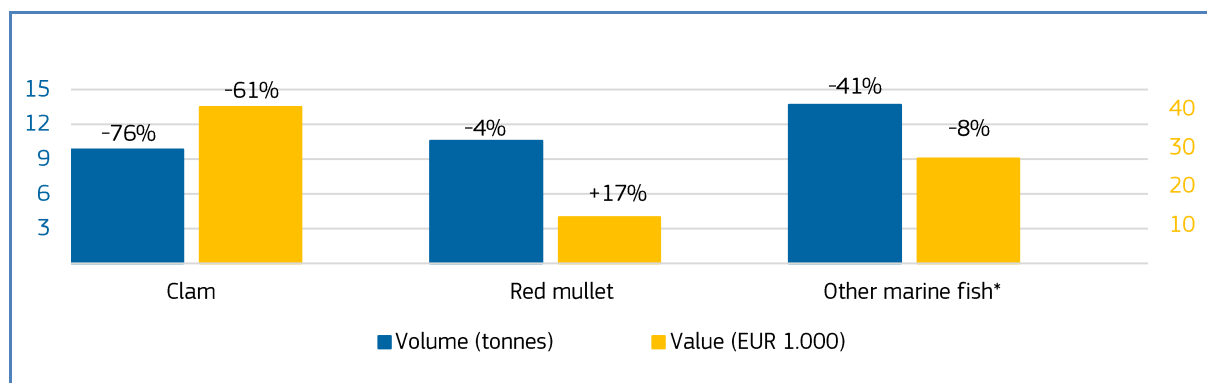
 Bulgaria	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Dec 2022 vs Jan-Dec 2021	EUR 1,4 million, -54%	1.946 tonnes, -51%	Clam, sprat, red mullet, other marine fish*.
Dec 2022 vs Dec 2021	EUR 0,083 -43%	41 tonnes, -48%	Clam, sprat, red mullet, other marine fish*.

Figure 1. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN BULGARIA, DECEMBER 2022**



Percentages show change from the previous year. *EUMOFA aggregation for species: Metadata 2, Annex 3 <https://www.eumofa.eu/supply-balance-and-other-methodologies>

Table 4. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN CYPRUS**


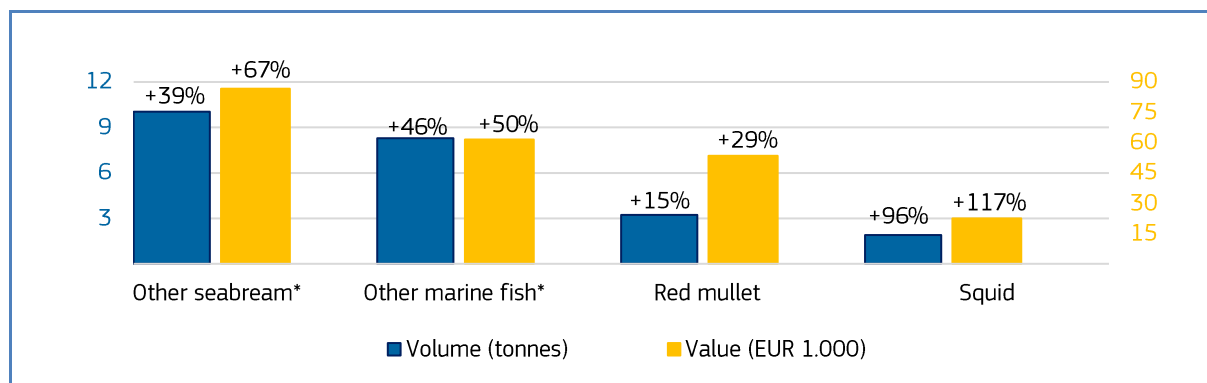
 Cyprus	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Dec 2022 vs Jan-Dec 2021	EUR 3,2 million, -15%	661 tonnes, -22%	Swordfish, other marine fish*, albacore tuna, red mullet.
Dec 2022 vs Dec 2021	EUR 0,3 million, +31%	35 tonnes, +16%	Other seabream*, other marine fish*, red mullet, squid.

Figure 2. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN CYPRUS, DECEMBER 2022**



Percentages show change from the previous year. *EUMOFA aggregation for species.

³ First-sales data update on 13.02.2023.

Table 5. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN ESTONIA**


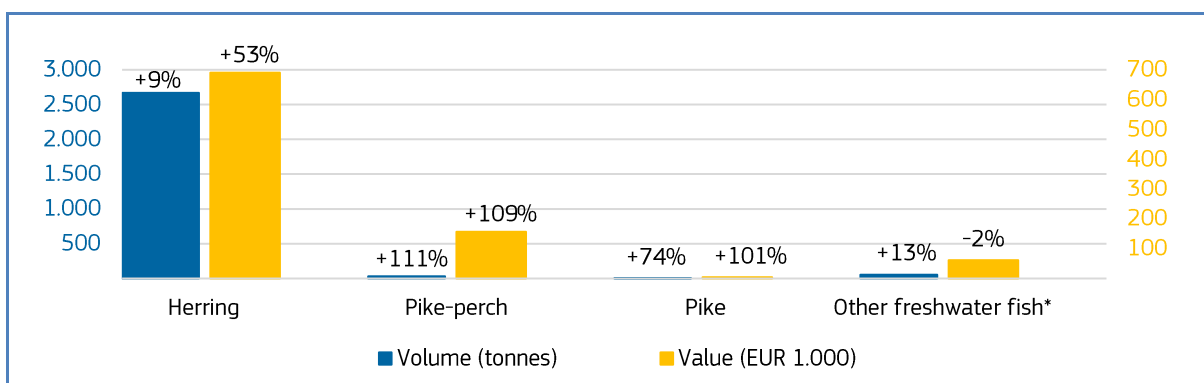
 Estonia	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Dec 2022 vs Jan-Dec 2021	EUR 17,0 million, -2%	57.529 tonnes, -13%	Herring, pike-perch, smelt, sprat.
Dec 2022 vs Dec 2021	EUR 1,6 million, +12%	5.564 tonnes, -20%	Value: Herring, pike-perch, pike. Volume: Sprat.

Figure 3. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN ESTONIA, DECEMBER 2022**



Percentages show change from the previous year. *EUMOFA aggregation for species.

Table 6. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN FRANCE**


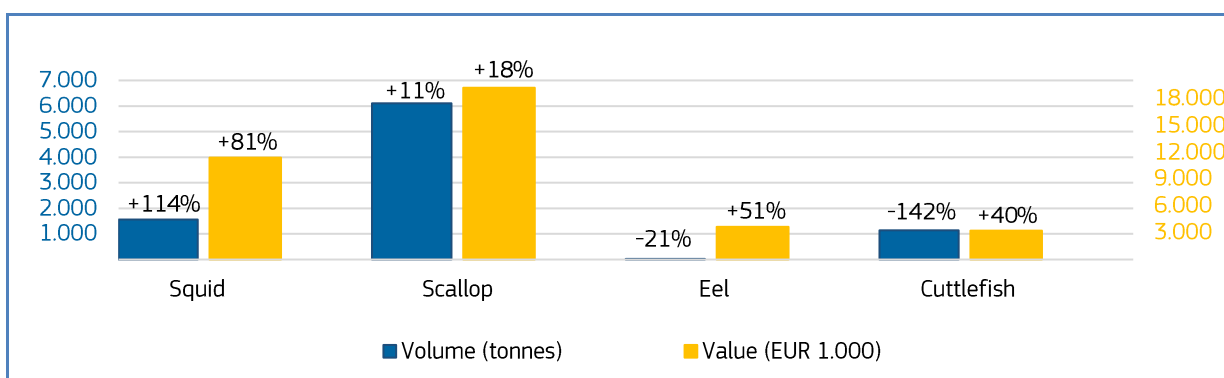
 France	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Dec 2022 vs Jan-Dec 2021	EUR 791,2 million, +9%	275.769 tonnes, +4%	Squid, scallop, octopus, sardine.
Dec 2022 vs Dec 2021	EUR 83,1 million, +4%	19.259 tonnes, +1%	Squid, scallop, eel, cuttlefish.

Figure 4. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN FRANCE, DECEMBER 2022**



Percentages show change from the previous year.

Table 7. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN GERMANY**


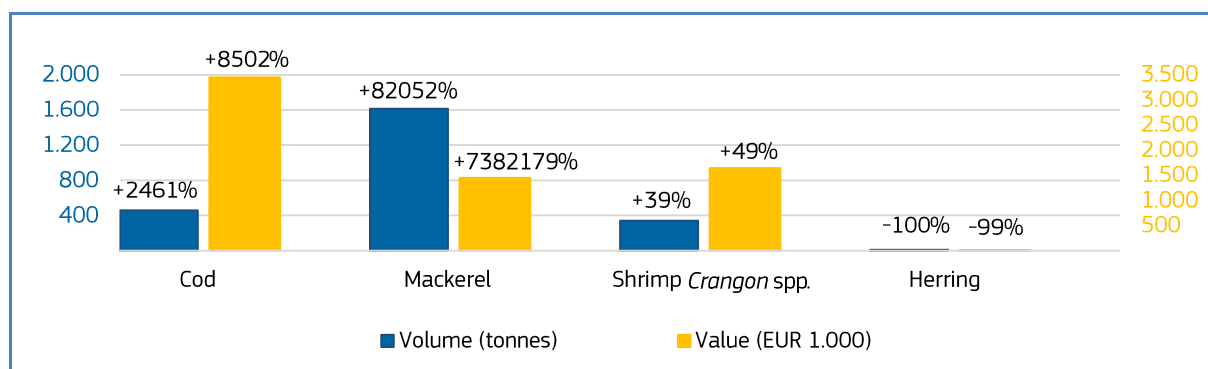

 Germany	First-sales value / trend %	First-sales volume / trend %	Main contributing species	Notes
Jan Dec 2022 vs Jan-Dec 2021	EUR 92,4 million, +6%	32.237 tonnes, -49%	Value: Shrimp <i>Crangon</i> spp., mackerel, Greenland halibut. Volume: Herring, sprat, cod, miscellaneous small pelagics*.	First sales of cod registered a high increase in December 2022 compared to December 2021. It should be noted that despite this increase, annual production in 2022 was lower than in 2021 (around 2.600 tonnes vs. 3.800 tonnes), in line with the decrease observed in the German cod quota between 2021 ⁴ (around 7.550 tonnes in total, including Arctic waters) and 2022 ⁵ (around 4.500 tonnes in total, including Arctic waters). The increase in price can be explained by the decrease in catches of North Sea cod, lower cod Russian production and the increase in fuel costs. First sales of mackerel registered a high increase in December 2022 compared to December 2021. This can be explained by the slight increase in the German Atlantic mackerel quota ⁶ , as well as other developments in the small pelagic sector, where inter-annual production can fluctuate a great deal.
Dec 2022 vs Dec 2021	EUR 7,2 million, +42%	2.727 tonnes, -25%	Value: Cod, mackerel, shrimp <i>Crangon</i> spp. Volume: Herring, Greenland halibut, European plaice.	

Figure 5. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN GERMANY, DECEMBER 2022**



Percentages show change from the previous year. *EUMOFA aggregation for species.

Table 8. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN ITALY**

 Italy	First-sales value / trend %	First-sales volume / trend %	Main contributing species	Notes
Jan Dec 2022 vs Jan-Dec 2021	EUR 371,9 million, +2%	82.288 tonnes, -5%	Value: Miscellaneous shrimps*, hake, swordfish, other marine fish*. Volume: Sardine, clam, other molluscs and aquatic invertebrates*.	In December 2022 first sale of warmwater shrimp increased significantly compared to December 2021. The spawning stock biomass (SSB) showed a decrease from 2020 to 2021 in the Adriatic, Ionian Sea and Tyrrhenian Sea ⁷ . There was however no evaluation of SSB in 2022. Nevertheless, it is possible to assume that a new increase in biomass occurred in 2022 compared to 2021, with higher mean size of the specimens landed, explaining the observed increase in both value and volume.
Dec 2022 vs Dec 2021	EUR 34,4 million, +5%	7.128 tonnes, +7%	Warmwater shrimp, clam, miscellaneous shrimps*, anchovy.	

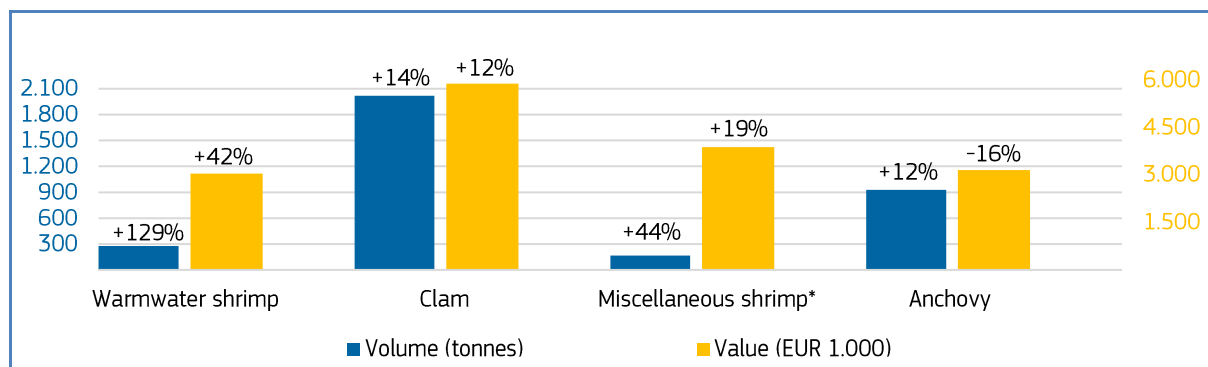
⁴ Council Regulation (EU) 2021/92 of 28 January 2021 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0092>

⁵ Council Regulation (EU) 2022/109 of 27 January 2022 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022R0109&print=true>

⁶ Council Regulation (EU) 2021/92 of 28 January 2021 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0092>

⁷ STECF, 2022a. Scientific, Technical and Economic Committee for Fisheries (STECF) – Stock Assessments: demersal stocks in Adriatic, Ionian and Aegean Seas and straits of Sicily (STECF-22-16). Publications Office of the European Union, Luxembourg, 2023, doi:10.2760/25344, JRC132157.

Figure 6. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN ITALY, DECEMBER 2022**

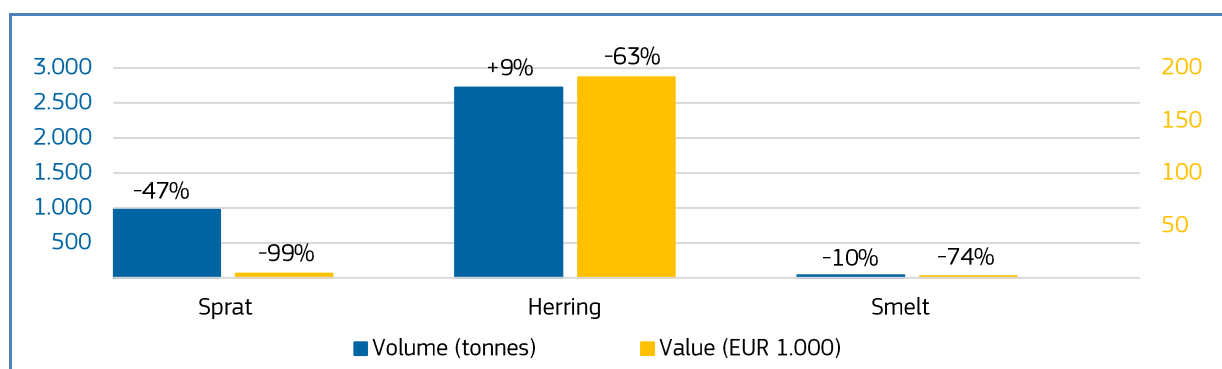


Percentages show change from the previous year. *EUMOFA aggregation for species.

Table 9. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN LATVIA**

Latvia	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Dec 2022 vs Jan-Dec 2021	EUR 9,2 million, -8%	43.853 tonnes, -6%	Herring, other freshwater fish*, smelt.
Dec 2022 vs Dec 2021	EUR 0,2 million, -79%	3.781 tonnes, -14%	Sprat, herring, smelt,

Figure 7. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN LATVIA, DECEMBER 2022**

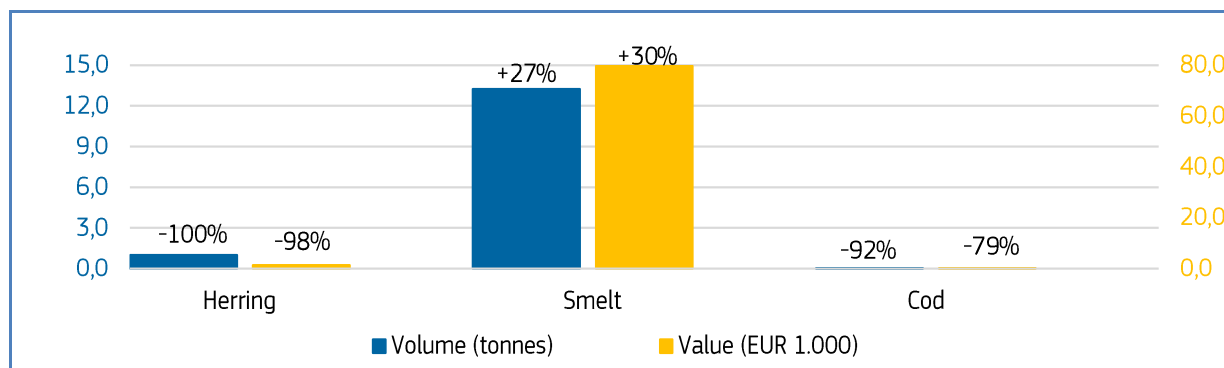


Percentages show change from the previous year. *EUMOFA aggregation for species.

Table 10. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN LITHUANIA**

Lithuania	First-sales value / trend %	First-sales volume / trend %	Main contributing species	Notes
Jan-Dec 2022 vs Jan-Dec 2021	EUR 0,6 million, -46%	792 tonnes, -70%	Herring, other groundfish*, sprat, smelt.	First sales of herring decreased strongly in December 2022 compared to December 2021. The main cause for a significant reduction is that a few Lithuanian companies which previously supplied the Lithuanian market have been undergoing reorganisation due to company mergers. Fishing activities have thus temporarily ceased. Landings and supplies from Lithuania may also have relocated to foreign countries. It is noticeable that most of the herring landed and sold in Lithuania was transferred to other countries for processing purposes. in December 2021. Average prices also showed a significant rise of 391% when comparing December 2022 with 2021. Such increases are due to the higher quality of herring provided to the market from coastal fishing areas, higher market demand for fish and fuel price increases.
Dec 2022 vs Dec 2021	EUR 0,082 million, -40%	15 tonnes, -95%	Herring, smelt, cod, smelt.	

Figure 8. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN LITHUANIA, DECEMBER 2022**



Percentages show change from the previous year. *EUMOFA aggregation for species.

Table 11. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN THE NETHERLANDS**


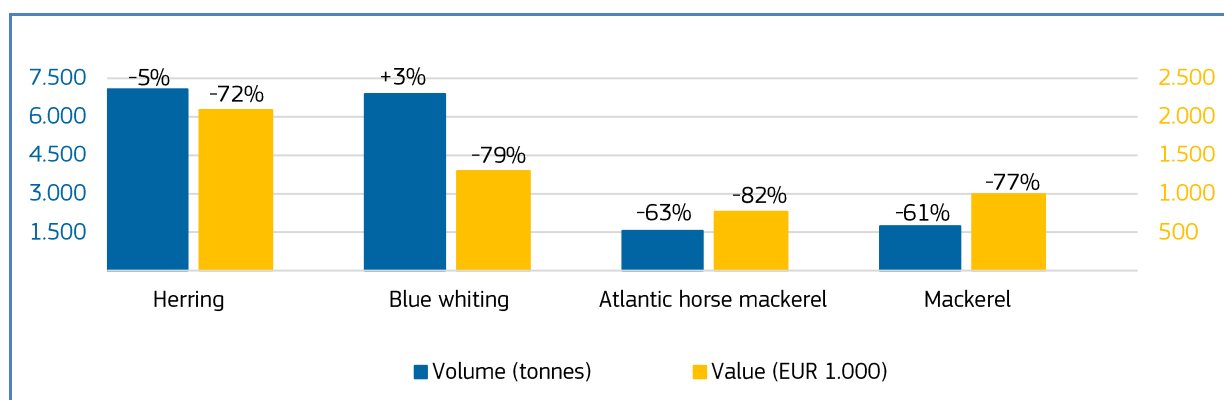
 The Netherlands	First-sales value / trend %	First-sales volume / trend %	Main contributing species	Notes
Jan-Dec 2022 vs Jan-Dec 2021	EUR 255,2 million, -24%	217.441 tonnes, -1%	Blue whiting, herring, mackerel, European plaice, sardine.	Horse mackerel first sales fell from 4.190 tonnes in December 2021 to around 1.600 tonnes in December 2022. When considering annual production, a slight increase is observed, from 21.700 tonnes in 2021 to 22.000 tonnes in 2022 (a 3-year record level), suggesting that the fishing opportunities for horse mackerel were exhausted before the end of the year. Mackerel production decreased from around 4.400 tonnes in December 2021 to around 1.700 tonnes in December 2022. As for other small pelagics, the inter-annual production level can fluctuate a lot due to various natural factors. The overall mackerel production observed in 2022 is back to the level observed in 2019 (around 20.800 tonnes) ⁸ .
Dec 2022 vs Dec 2021	EUR 21,8 million, -45%	20.148 tonnes, -23%	Herring, blue whiting, Atlantic horse mackerel, mackerel.	

Figure 9. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN THE NETHERLANDS, DECEMBER 2022**



Percentages show change from the previous year.

⁸ E.G. see ICES, 2021. ICES Advice on fishing opportunities, catch and effort. Ecoregions in the Northeast Atlantic and the Arctic Ocean. Published 30 September 2021. ICES Advice 2021 –mac.27.nea, <https://doi.org/10.17895/ices.advice.7789>



Table 12. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN PORTUGAL**


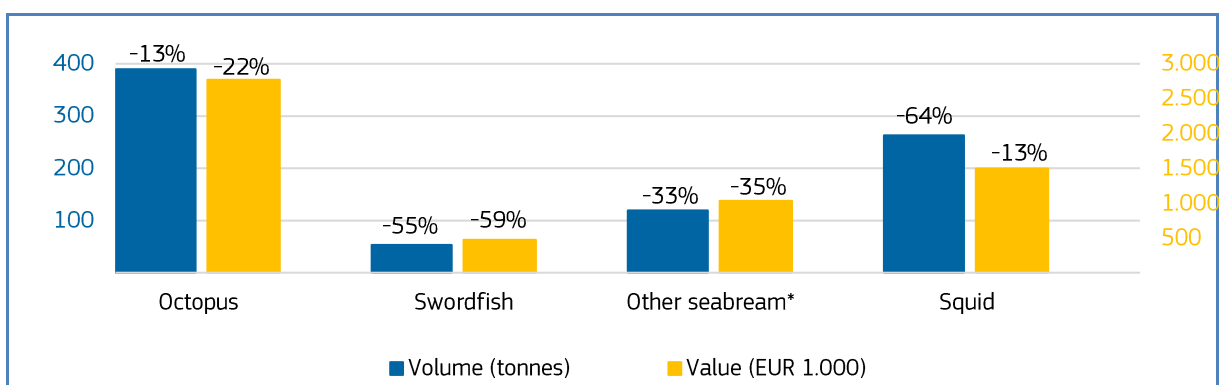
 Portugal	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Dec 2022 vs Jan-Dec 2021	EUR 291,9 million, 0%	111.884 tonnes, -14%	Value: Octopus, sardine, Atlantic horse mackerel. Volume: Anchovy, other horse mackerel*, sardine, skipjack tuna.
Dec 2022 vs Dec 2021	EUR 14,7 million, -18%	3.590 tonnes, -16%	Octopus, swordfish, other seabream*, squid.

Figure 10. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN PORTUGAL, DECEMBER 2022**



Percentages show change from the previous year. *EUMOFA aggregation for species.

Table 13. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN SPAIN**


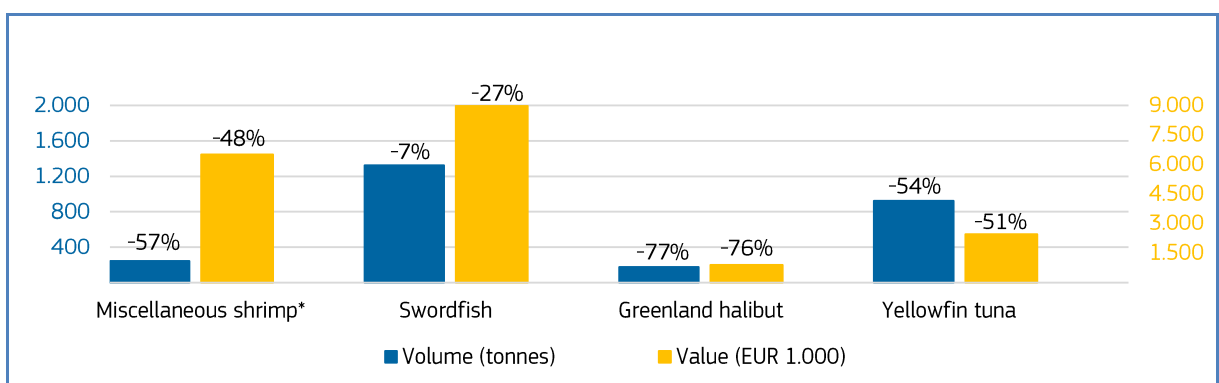
 Spain	First-sales value / trend in %	First-sales volume / trend %	Main contributing species
Jan-Dec 2022 vs Jan-Dec 2021	EUR 1,6 billion, +4%	456.473 tonnes -7%	Value: Squid, yellowfin tuna, mackerel. Volume: Hake, Atlantic horse mackerel, anchovy.
Dec 2022 vs Dec 2021	EUR 124,2 million, -10%	27.063 tonnes, -3%	Miscellaneous shrimp*, swordfish, Greenland halibut, yellowfin tuna.

Figure 11. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN SPAIN, DECEMBER 2022**



Percentages show change from the previous year. *EUMOFA aggregation for species.

Table 14. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN SWEDEN**


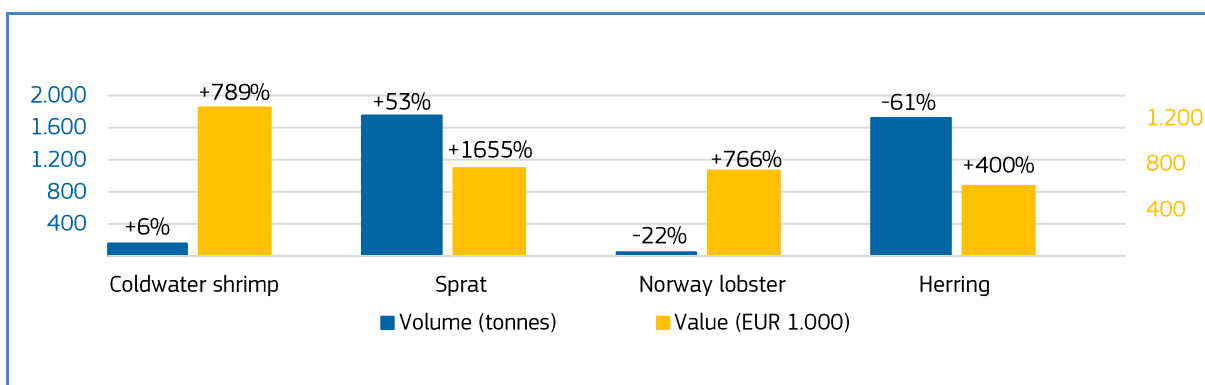
 Sweden	First-sales value / trend in %	First-sales volume / trend in %	Main contributing species
Jan-Dec 2022 vs Jan-Dec 2021	EUR 58,8 million, +27%	82.001 tonnes, -31%	Value: Norway lobster, coldwater shrimp, other salmonids*. Volume: Herring, sprat, other groundfish*.
Dec 2022 vs Dec 2021	EUR 4,3 million, +848%	3.883 tonnes, -34%	Value: Coldwater shrimp, sprat, Norway lobster, herring. Volume: herring, cod, Norway lobster.

Figure 12. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN SWEDEN, DECEMBER 2022**



Percentages show change from the previous year. *EUMOFA aggregation for species.

Table 15. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN NORWAY**


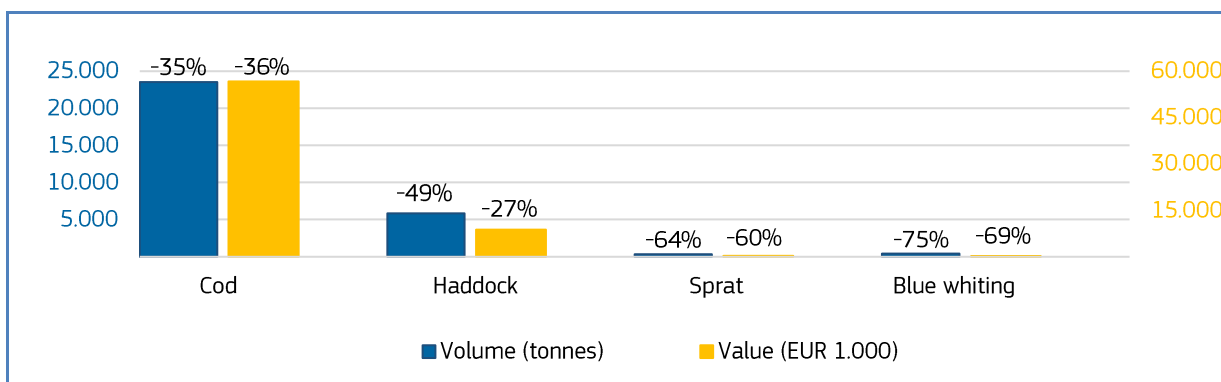
 Norway	First-sales value / trend %	First-sales volume ⁹ / trend %	Main contributing species
Jan-Dec 2022 vs Jan-Dec 2021	EUR 3,3 billion, +22%	2,9 million tonnes, +1%	Cod, saithe, mackerel, herring, miscellaneous small pelagics*.
Dec 2022 vs Dec 2021	EUR 110,2 million, -25%	75.710 tonnes, -18%	Cod, haddock, sprat, blue whiting.

Figure 13. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN NORWAY, DECEMBER 2022**



Percentages show change from the previous year. *EUMOFA aggregation for species.

⁹ Volume reported in live weight equivalent (LWE)

Table 16. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN THE UNITED KINGDOM**


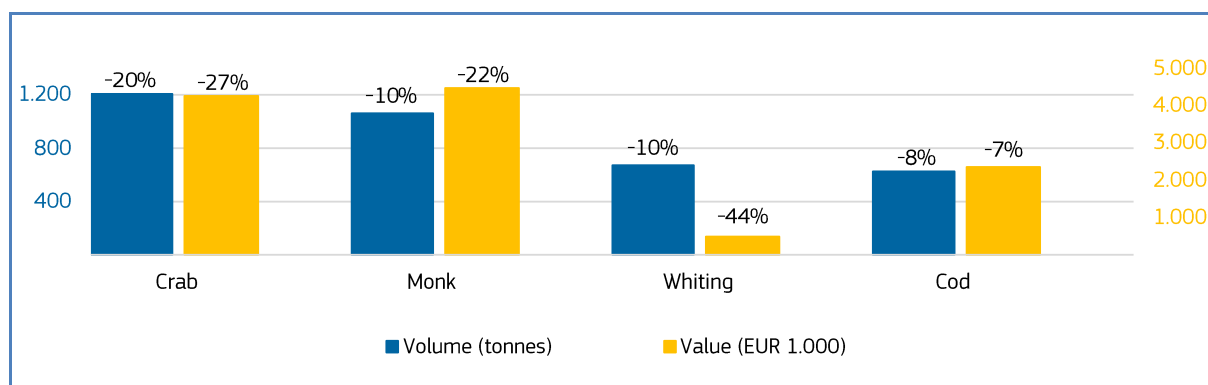
 The United Kingdom	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Dec 2022 vs Jan-Dec 2021	EUR 658 million, +4%	310.180 tonnes, -6%	Value: Norway lobster, mackerel, scallop, cod. Volume: Norway lobster, blue whiting, other molluscs and aquatic invertebrates*, crab.
Dec 2022 vs Dec 2021	EUR 37,2 million, -4%	12.020 tonnes, +3%	Value: Crab, monk, whiting. Volume: Haddock, sardine, scallop, Norway lobster.

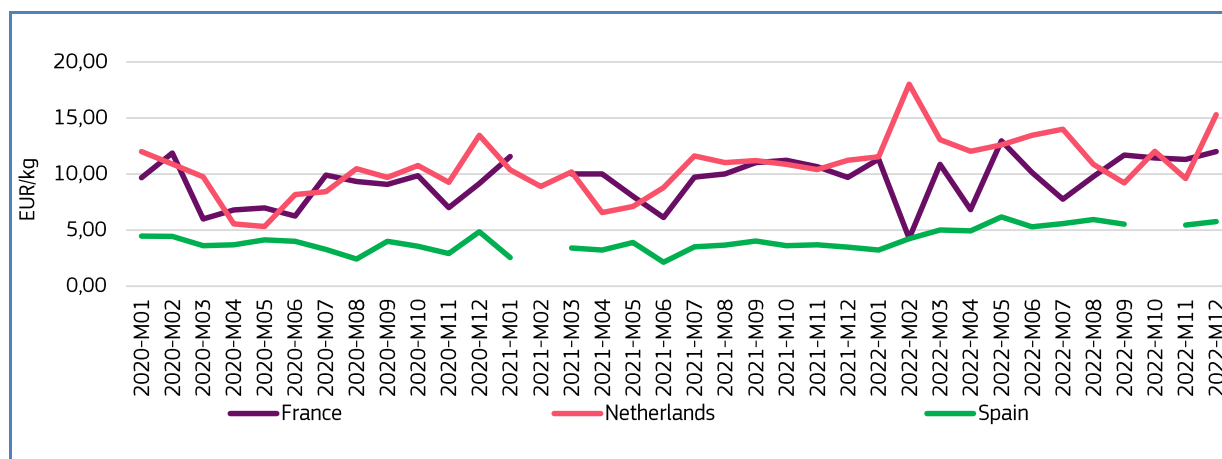
Figure 14. **FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN THE UNITED KINGDOM, DECEMBER 2022**



Percentages show change from the previous year. *EUMOFA aggregation for species.

1.4. Comparison of first-sales prices of selected species in selected countries¹⁰

Figure 15. **FIRST SALES PRICES OF ATLANTIC HALIBUT IN FRANCE, THE NETHERLANDS, AND SPAIN**

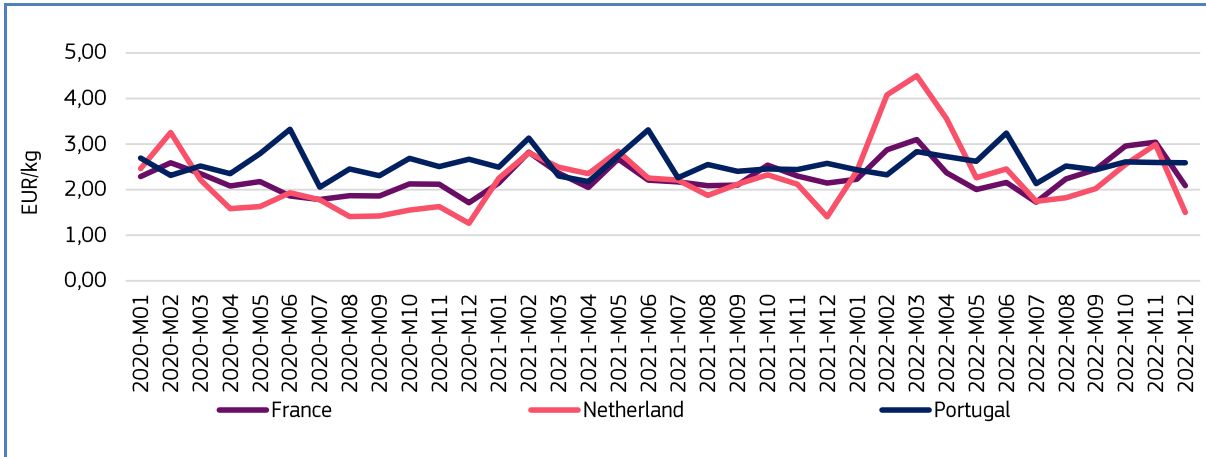


EU first sales of **Atlantic halibut** occur in several countries, including **France, the Netherlands, and Spain**. In December 2022, average first-sales prices of Atlantic halibut were 12,00 EUR/kg in France (up from November 2022 and December 2021 by 6% and 24%, respectively); 15,30 EUR/kg in the Netherlands (up from both the previous month and year by 59%, and 36%, respectively); and 5,75 EUR/kg in Spain (up from November 2022 and December 2021 by 6%, and 65%, respectively). In December 2022 compared to the previous year, supply decreased in the three markets: France (75%), Netherlands (99%) and Spain (61%). Supply is seasonal, with peaks between May and June/July in the Netherlands. In Spain supply seems to peak more often between April and June and between November and January. Volumes sold in France seem

¹⁰ First-sales data updated on 13.02.2023.

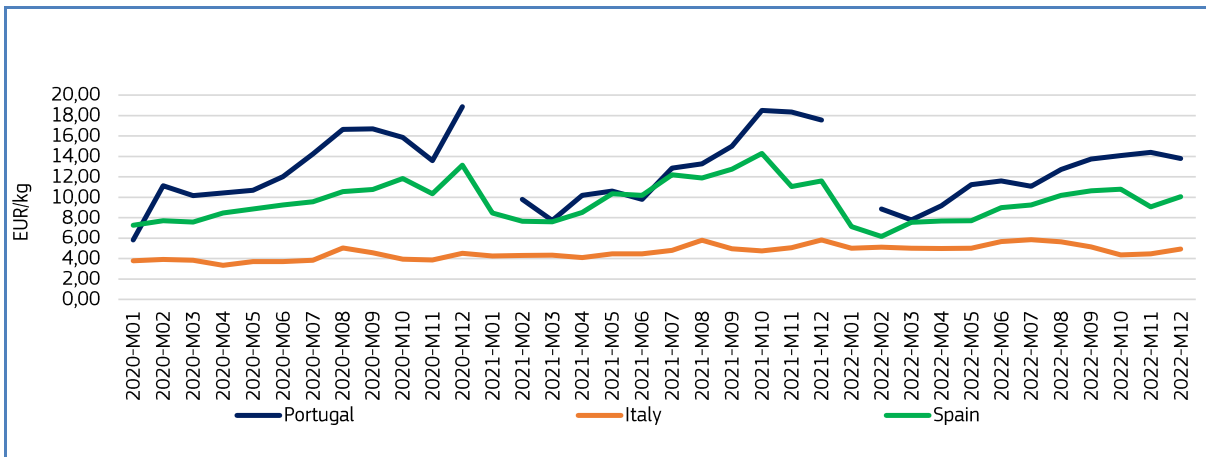
to peak more often in March/April and between May and June. Over the past 36 months, Atlantic halibut prices have been stable in all countries surveyed and supply has decreased.

Figure 16. **FIRST SALES PRICES OF RAY IN FRANCE, THE NETHERLANDS, AND PORTUGAL**



EU first sales of **ray** occur predominantly in **France**, as well as **the Netherlands** and **Portugal**. In December 2022, the average first-sales prices of ray were: 2,09 EUR/kg in France (down from the previous month and from the previous year by 31% and 3%, respectively); 1,50 EUR/kg in the Netherlands (down from November 2022 by 50% and up from December 2021 by 7%); and 2,59 EUR/kg in Portugal where price and volume were stable compared both to the previous month and December 2021. In December 2022, supply decreased in France and Portugal (19%, and 5% respectively), and increased in the Netherlands (29%), relative to the previous year. Supply is seasonal, with peaks in the Netherlands in November/December; in France supply seems to peak in January and April in France. Volumes sold in Portugal do not seem to exhibit a clear seasonality. Over the 36-month period observed, ray prices showed a stable trend in the three markets analysed; at the same time, volume went down in France while it was stable in the Netherlands and Portugal.

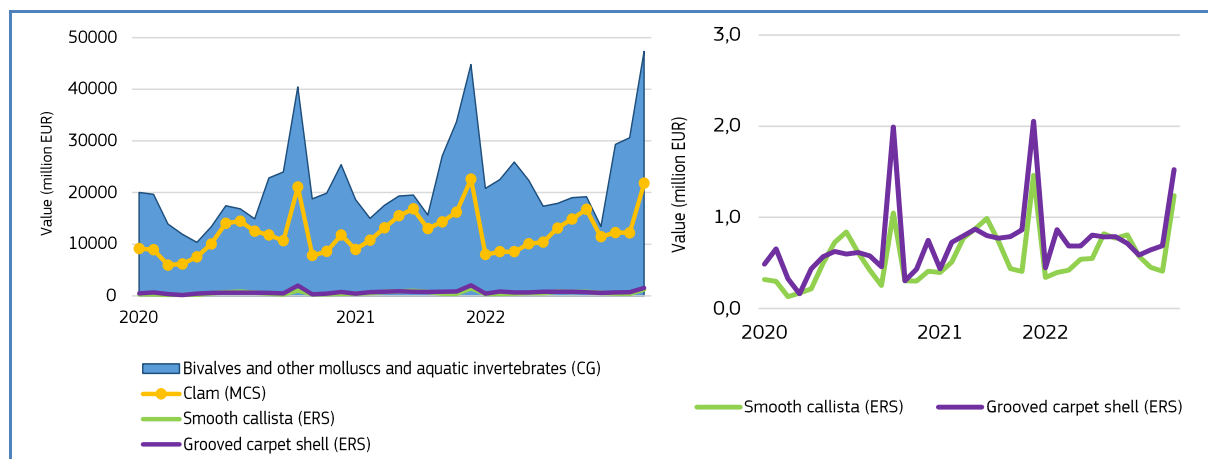
Figure 17. **FIRST SALES PRICES OF DEEP-WATER ROSE SHRIMP IN ITALY, PORTUGAL, AND SPAIN**



EU first sales of **deep-water rose shrimp** occur predominantly in **Spain**, as well as **Italy** and **Portugal**. In December 2022, the average first-sales prices of deep-water rose shrimp were 4,94 EUR/kg in Italy (up from the previous month by 11% and down from the previous year by 15%); 13,79 EUR/kg in Portugal (down from the previous month by 4%, and down from the previous year by 22%); and 10,05 EUR/kg in Spain (up by 11% from November 2022 and down by 13% from December 2021). In December 2022, supply increased in Italy (26%) and in Portugal slightly (1%), while the volume decreased in Spain (12%), compared to the previous year. Volumes sold in Italy seem to peak between April and July; volumes sold in Portugal seem to peak between June and August. Supply in Spain seems to peak in March/April, June/July and November/December. Over the past three years, prices have shown a stable trend in all countries surveyed, while at the same time supply increased slightly in Portugal, increased in Spain and fell in Italy.

1.5. Commodity group of the month: Bivalves and other molluscs and aquatic invertebrates¹¹

Figure 18. **FIRST SALES COMPARISON AT CG, MCS, AND ERS LEVELS FOR REPORTING COUNTRIES¹², JANUARY 2020 – DECEMBER 2022**



In December 2022 the **"Bivalves and other molluscs and aquatic invertebrates"**¹³ commodity group (CG¹⁴) registered the second highest first sales value and volume of the 10 CGs recorded. Across the reporting countries covered by the EUMOFA database, first sales of bivalves reached a value of EUR 47,3 million and a volume of 11.131 tonnes, representing a 6% increase in value and 1% increase in volume compared to December 2021. In the past 36 months, the highest first-sales value of bivalves was recorded at EUR 47,3 million in December 2022, while the lowest was recorded at EUR 10,4 million in May 2020.

The bivalves and other molluscs and aquatic invertebrates commodity group includes 10 main commercial species (MCS): abalone, clam, jellyfish, mussel *Mytilus* spp., other mussel, oyster, scallop, sea cucumber, sea urchin, other molluscs and other invertebrates¹⁵.

At the Electronic Recording and Reporting System (ERS) level, grooved carpet shell (3%) and smooth callista (3%) together accounted for 6% of total "bivalves" first-sales value recorded in December 2022.

1.6. Focus on Grooved carpet shell

Grooved carpet shell (*Ruditapes decussatus*) is a member of the family Veneridae. It is a benthic and brackish species occupying a depth range 0-1 m. It is a tropical shell which prefers a temperature around 15°C. It tends to bury itself in sand, muddy gravel, clay or silty mud and is found on the lower shore and shallow sublittoral. The species mainly feeds on phytoplankton and detritus¹⁶. Grooved carpet shell inhabits the eastern Atlantic and the Mediterranean: from Norway to the United Kingdom, France, Spain, Portugal, Morocco, Mauritania and Senegal, including also the Mediterranean. The species was also introduced in the Azores Islands¹⁷.



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Year Book

The EU minimum conservation reference size is 40 mm¹⁸. Grooved carpet shell is an important species both for capture fisheries and marine aquaculture¹⁹. It can be harvested manually, as well as from boats, which may vary in size between less than 1 tonne and up to 12 tonnes. Grooved carpet shell is canned or eaten fresh. At 3°C -10°C the clams have a shelf life of 5 days. Clams are sold in local supermarkets, popular markets, hotels and restaurants. The price varies according to their abundance in the market²⁰.

¹¹ First-sales data updated on 21.02.2023.

¹² Norway and the UK excluded from the analyses.

¹³ In the further text bivalves refers to "Bivalves and other molluscs and aquatic invertebrates"

¹⁴ Annex 3: <http://eumofa.eu/supply-balance-and-other-methodologies>

¹⁵ EUMOFA aggregation for species (Metadata 2, Annex 3: <http://eumofa.eu/supply-balance-and-other-methodologies>).

¹⁶ <https://www.sealifebase.ca/summary/Ruditapes-decussatus.html>

¹⁷ <https://www.sealifebase.ca/summary/Ruditapes-decussatus.html>

¹⁸ Regulation (EU) 2019/1241 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R1241&rid=4>

¹⁹ https://fish-commercial-names.ec.europa.eu/fish-names/species_en?sn=32173

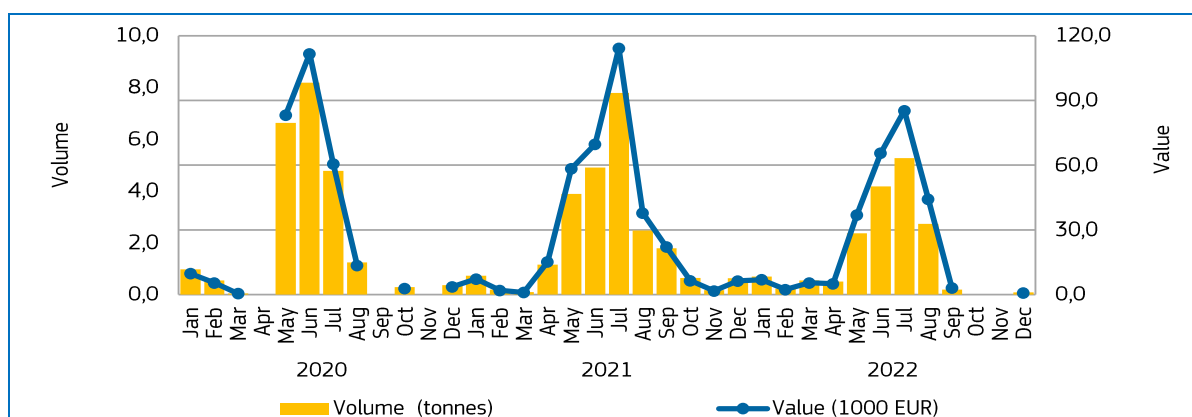
²⁰ http://firms.fao.org/fi/website/FIRetrieveAction.do?dom=culturespecies&xml=Ruditapes_decussatus.xml&lang=en

Selected countries

Table 17. **COMPARISON OF GROOVED CARPET SHELL FIRST SALES, MAIN PLACES OF SALE, AND CONTRIBUTION TO OVERALL SALES OF "BIVALVES" IN SELECTED COUNTRIES**

Grooved carpet shell		Changes in grooved carpet shell first sales Jan-Dec 2022 (%)		Contribution of grooved carpet shell to total "bivalves" first sales in Oct 2022 (%)	Main places of sale in Jan-Dec 2022 in terms of first-sales value
		Compared to Jan-Dec 2021	Compared to Jan-Dec 2020		
Italy	Value	-25%	-12%	0,01%	Baia, Oristano.
	Volume	-31%	-27%	0,004%	
Portugal	Value	+36%	+28%	4%	Peniche, Olhão, Sesimbra.
	Volume	+25%	+6%	1%	
Spain	Value	-7%	+24%	10%	Noia, Carril, Grove.
	Volume	-8%	+11%	3%	

Figure 19. **GROOVED CARPET SHELL: FIRST SALES IN ITALY, JANUARY 2020, DECEMBER 2022**



In **Italy** from January 2020 to December 2022, the first-sales volume of grooved carpet shell peaked in June 2020 at 8,2 tonnes. First sales are typically highest in May–August when the season for grooved carpet shell is at its peak. The production cycle of grooved carpet shell is seasonal, and it fluctuates on a yearly basis, which influences catches and first sales.

Figure 20. **FIRST SALES: COMPOSITION OF "BIVALVES" (ERS LEVEL) IN ITALY, IN VALUE AND VOLUME, DECEMBER 2022**

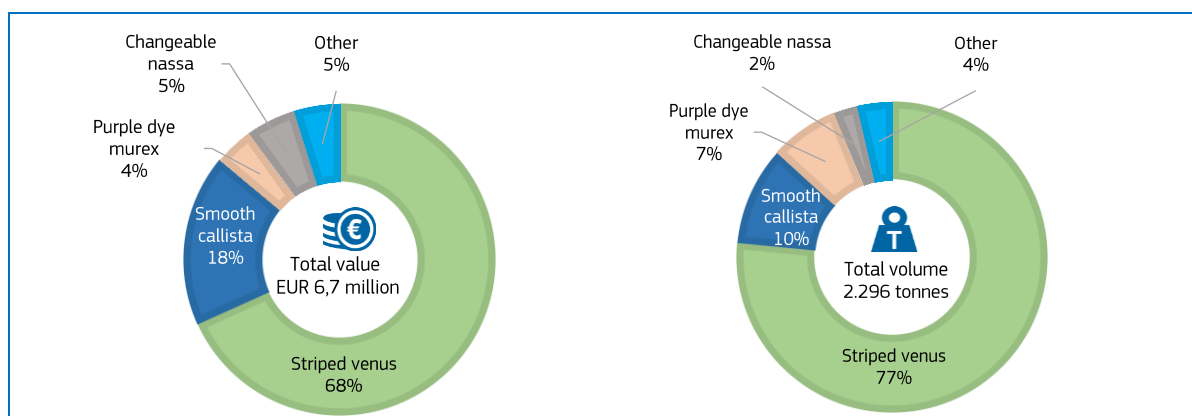
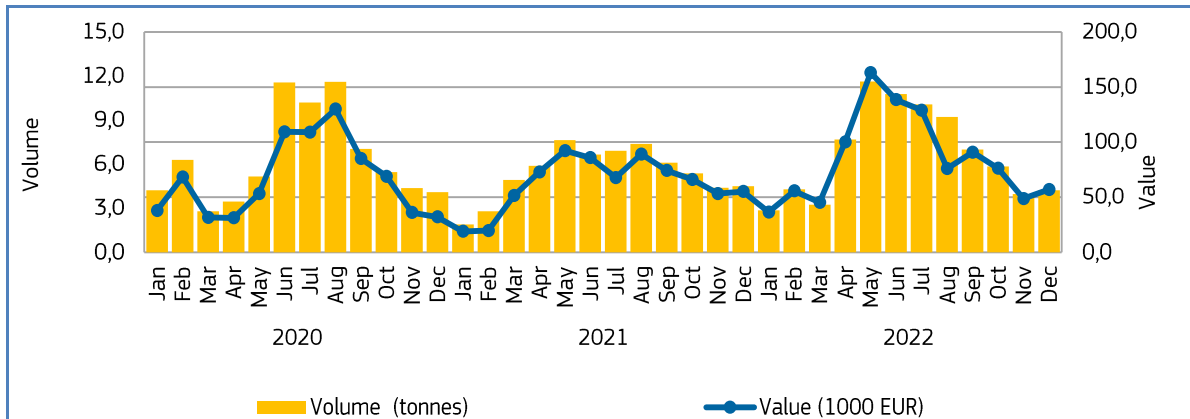




Figure 21. **GROOVED CARPET SHELL: FIRST SALES IN PORTUGAL, JANUARY 2020, DECEMBER 2022**



In **Portugal** grooved carpet shell is one of the most important bivalve species in both fisheries and aquaculture²¹, but first sales cover only fisheries. Over the past 36 months (January 2020–December 2022), the highest first sales occurred in May 2022 when 11,6 tonnes were sold. The highest sales occur in summer when spawning takes place. The grooved carpet shell clam, although much less abundant than the other bivalve species (pullet carpet shell, common cockle, manila clam) has been seen as a "noble" resource due to the high commercial value reached on first-sale fish auction market²².

Figure 22. **FIRST SALES: COMPOSITION OF "BIVALVES" (ERS LEVEL) IN PORTUGAL, IN VALUE AND VOLUME, DECEMBER 2022**

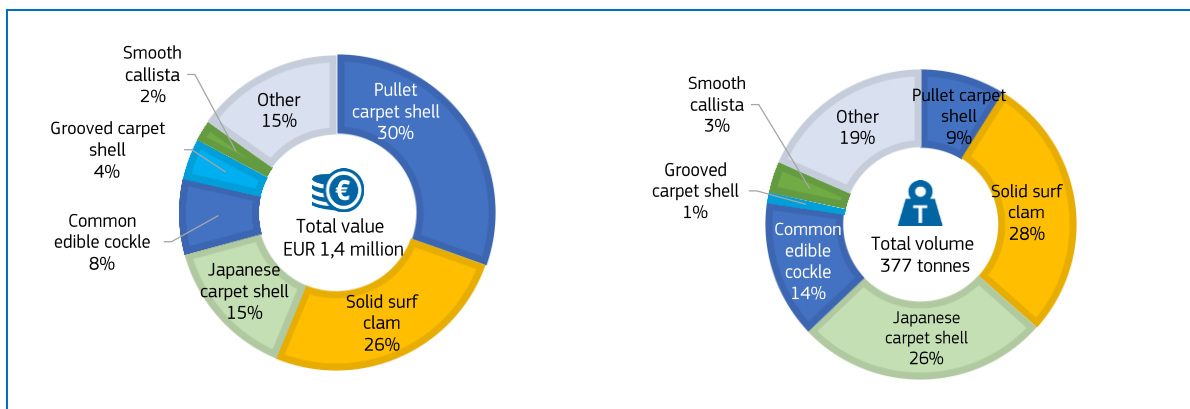
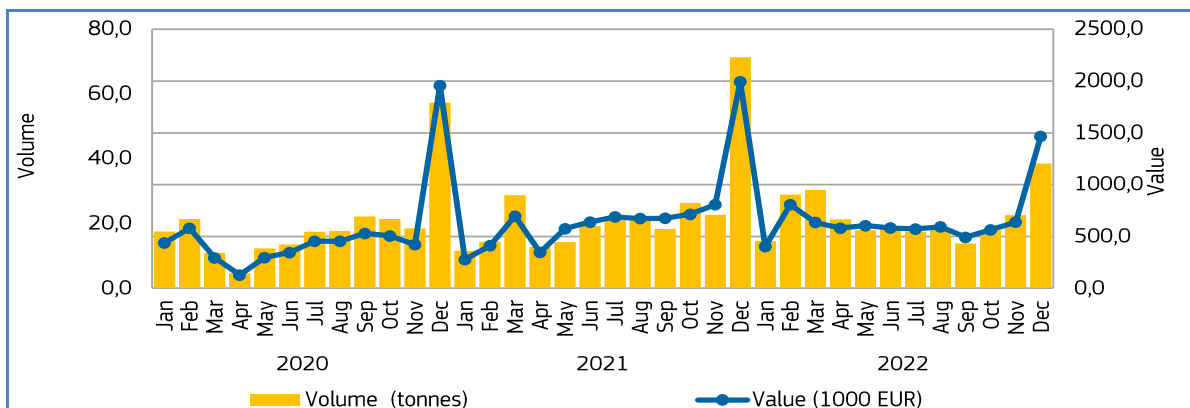


Figure 23. **GROOVED CARPET SHELL: FIRST SALES IN SPAIN, JANUARY 2020 - DECEMBER 2021**



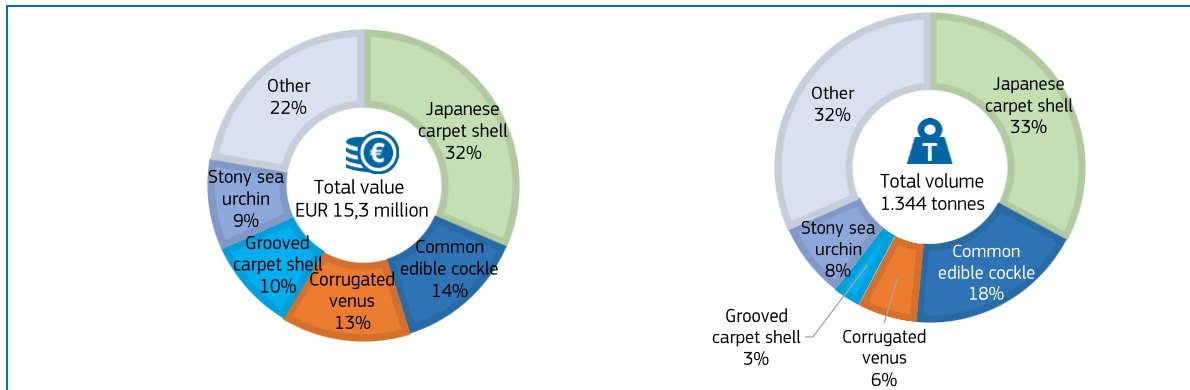
²¹ https://www.cienciaviva.pt/peixes/home/index.asp?acciao=showpeixe&id_especie=28&idioma=en

²² https://www.researchgate.net/publication/337331936_Spatial_and_temporal_variation_in_the_abundance_distribution_and_population_structure_of_the_grooved_carpet_shell_clam_Ruditapes_decussatus_BivalviaVeneridae_in_Ria_de_Aveiro_lagoon_Portugal



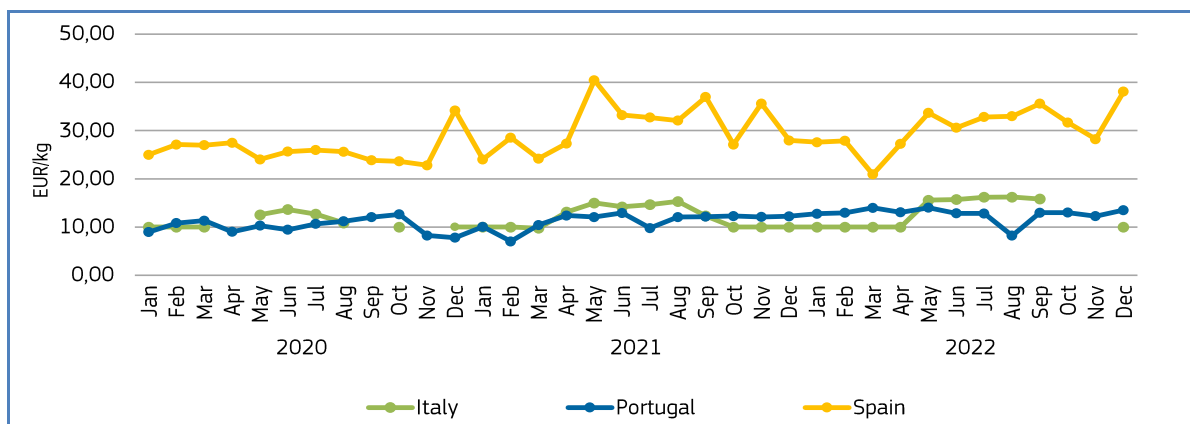
From January 2020 to December 2022 in **Spain**, the highest first sales of grooved carpet shell occurred during winter, peaking in December 2021 when 71,3 tonnes were sold. In the Galician region, fishermen harvest clams by walking the intertidal areas and using special hand shovels, or sometimes by means of rakes that are normally used for keeping the culture beds clear of seaweed. Clams may also be harvested from boats using various tools including the 'rastro' and the 'raño' (rake), which are operated from the boats by means of a long handle²³.

Figure 24. **FIRST SALES: COMPOSITION OF “BIVALVES” (ERS LEVEL) IN SPAIN, IN VALUE AND VOLUME, DECEMBER 2022**



Price trend

Figure 25. **GROOVED CARPET SHELL: FIRST SALES PRICES IN SELECTED COUNTRIES, JANUARY 2020 - DECEMBER 2022**



Over the 36-month observation period from January 2020 to December 2022, the weighted average first-sales price of grooved carpet shell in **Spain** was 29,40 EUR/kg, 113% higher than in **Italy** (13,82 EUR/kg), and 155% higher than in **Portugal** (11,53 EUR/kg).

In **Italy** in December 2022, the average first-sales price of grooved carpet shell (10,00 EUR/kg) remained the same compared to December 2021 and 2020. Over the observation period from January 2020 to December 2022, the average price ranged from 9,76 EUR/kg in March 2021 to 16,22 EUR/kg for 2,7 tonnes in August 2022.

In **Portugal** in December 2022, the average first-sales price of grooved carpet shell (13,50 EUR/kg) increased by 10% and by 73% respectively compared to the same months in 2021 and 2020. During the period observed, the lowest average price (7,04 EUR/kg for 2,8 tonnes) was in February 2021, while the highest average price was recorded in May 2022, at 14,02 EUR/kg for 11,6 tonnes.

In **Spain** in December 2022, the average first-sales price of grooved carpet shell (38,07 EUR/kg) increased by 36% compared to December 2021 and by 11% compared to December 2020. During the period observed, the lowest average

²³ <https://thefishsite.com/articles/cultured-aquatic-species-grooved-carpet-shell>

price of 20,92 EUR/kg for 30,4 tonnes was in March 2022, while the highest average price was recorded in May 2021 at 40,42 EUR/kg for 14,2 tonnes.

1.7. Focus on Smooth callista



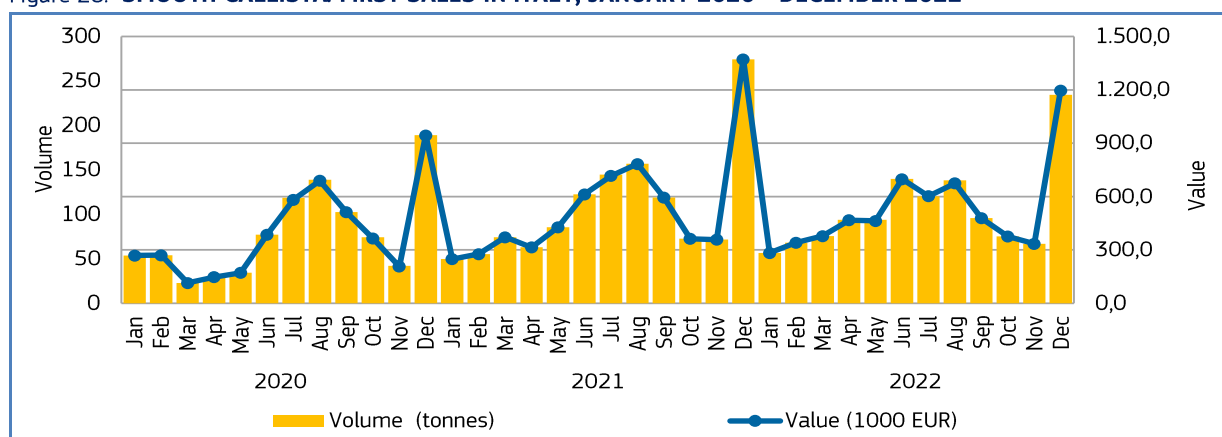
Smooth callista (*Callista chione*) is a member of the Veneridae family. It is a benthic species that can be found at a depth range of 10 m -180 m. It is subtropical and prefers water temperatures around 9°C. The species is an active suspension feeder and can be found on sandy substrates²⁴. As a filter-feeder, smooth callista is able to concentrate toxins from dinoflagellate blooms associated with pollution events such as red tides, sewage water, old sediment dredging, ship ballast water dumping, etc. These toxins cannot be eliminated by the traditional cleansing of the shellfish in clean water or by cooking and can be responsible for complex human health problems such as respiratory ailments, skin rashes or even paralysis²⁵. Smooth callista is found in the eastern Atlantic and the Mediterranean²⁶. The EU has established a minimum conservation reference size for smooth callista, which is 6 cm in the North and Southwestern Waters and the North Sea of the EU²⁷. Smooth callista is a commercial species, most commonly collected by dredges and trawls²⁸.

Selected countries

Table 18. COMPARISON OF SMOOTH CALLISTA FIRST SALES, MAIN PLACES OF SALE, AND CONTRIBUTION TO OVERALL SALES OF BIVALVES IN SELECTED COUNTRIES

Smooth callista		Changes in Smooth callista first sales Jan-Dec 2022 (%)		Contribution of Smooth callista to total "bivalves" first sales in Dec 2022 (%)	Main places of sale in Jan-Dec 2022 in terms of first-sales value
		Compared to Jan-Dec 2021	Compared to Jan-Dec 2020		
Italy	Value	-2%	+35%	18%	Chioggia, Marano Lagunare, Caorle.
	Volume	-2%	+34%	10%	
Portugal	Value	+26%	+102%	2%	Setúbal, Sesimbra, Portimao.
	Volume	+2%	+14%	3%	
Spain	Value	-27%	-4%	0,08%	La Atunara, Muros, Esterio.
	Volume	-55%	-53%	0,11%	

Figure 26. SMOOTH CALLISTA: FIRST SALES IN ITALY, JANUARY 2020 - DECEMBER 2022



²⁴ <https://www.sealifebase.ca/summary/Callista-chione.html>

²⁵ <https://species.nbnatlas.org/species/NBNSYS0000174280>

²⁶ <https://www.sealifebase.ca/summary/Callista-chione.html>

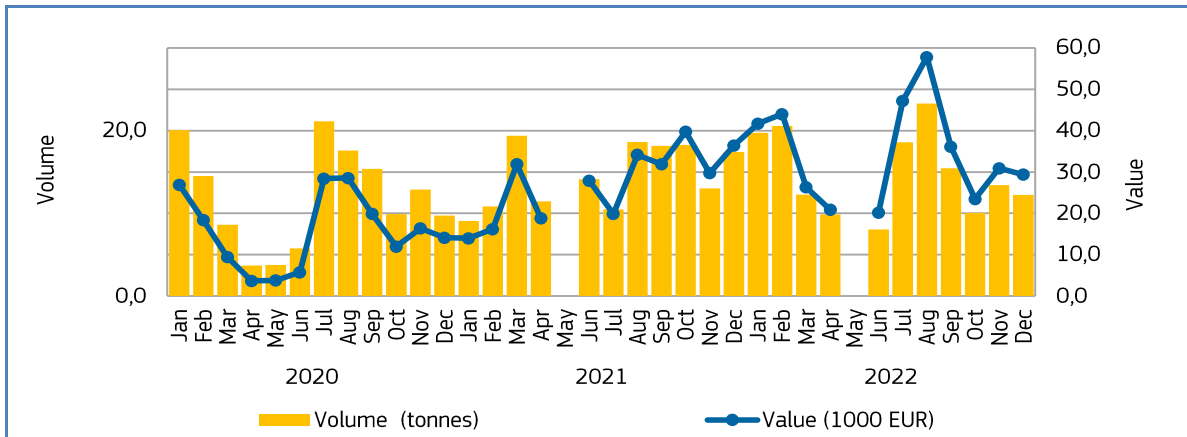
²⁷ REGULATION (EU) 2019/1241: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R1241&rid=4>, <https://www.legislation.gov.uk/eur/2019/1241/annex/VI/2020-12-31/data.pdf>

²⁸ https://fish-commercial-names.ec.europa.eu/fish-names/species_en?sn=10488



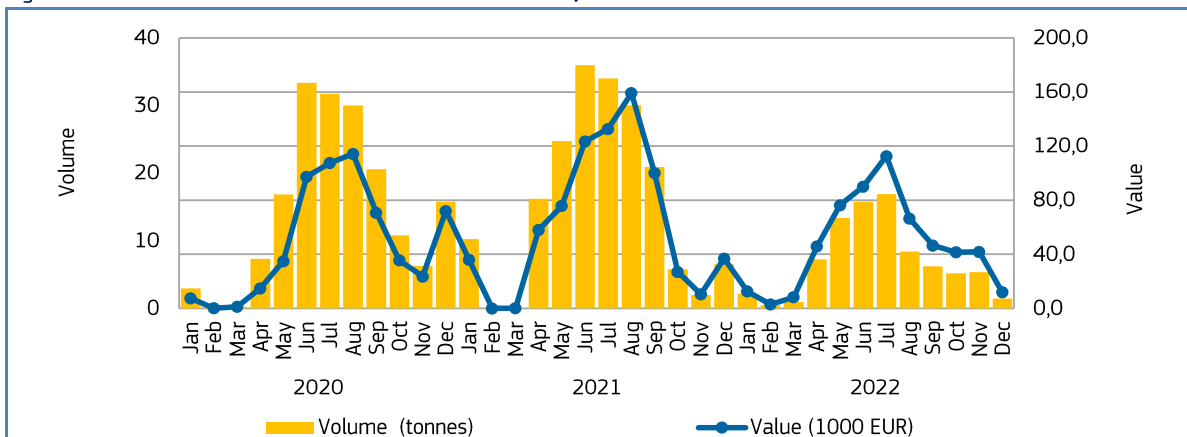
In **Italy** over the observed 36-month period (January 2020–December 2022), the highest first-sales of smooth callista occurred in December 2021 when 274 tonnes were sold. First sales were the highest in winter, mainly in December which could be closely linked with traditionally higher seafood consumption over Christmas in Italy.

Figure 27. **SMOOTH CALLISTA: FIRST SALES IN PORTUGAL, JANUARY 2020 - DECEMBER 2022**



In **Portugal** from January 2020 to December 2022, the highest first sales volume of smooth callista were registered in August 2022 when 23,3 tonnes were sold. In Portugal, this clam is more abundant on the southwest coast where it is exploited by a fleet of dredgers²⁹. There were no sales in May 2022 and 2021.

Figure 28. **SMOOTH CALLISTA: FIRST SALES IN SPAIN, JANUARY 2020 - DECEMBER 2022**

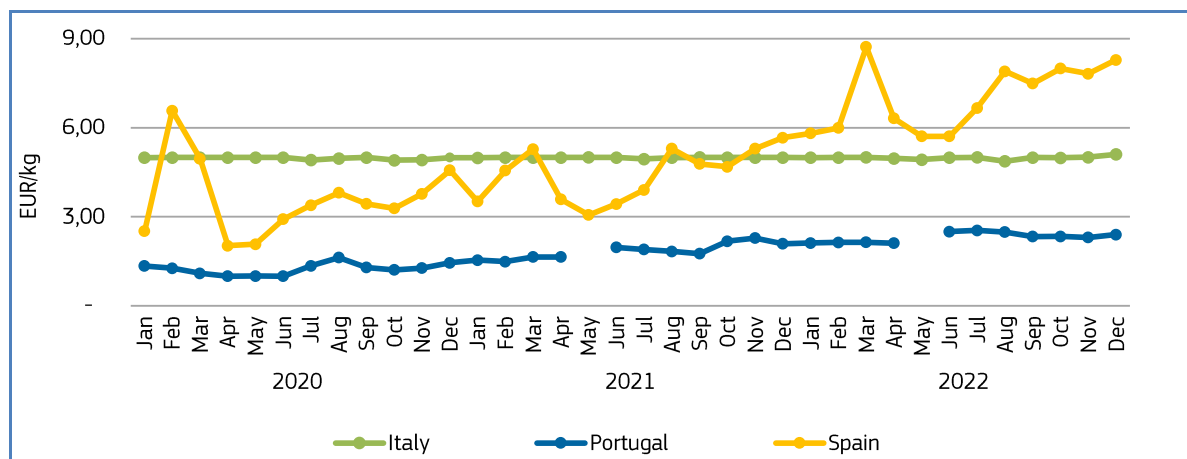


In **Spain**, over the 36-month observation period from January 2020 to December 2022, the highest first sales volume of smooth callista was registered in June 2021 when 36 tonnes were sold. When analysing reported first sales it can be observed that the smooth callista fishery is more intense in warmer months in the summer, whereas the low sales occur during colder periods of the year.

²⁹ Paulo Vasconcelos, António Morgado-André, Carlos Morgado-André, Miguel B. Gaspar, Shell strength and fishing damage to the smooth clam (*Callista chione*): simulating impacts caused by bivalve dredging, ICES Journal of Marine Science, Volume 68, Issue 1, January 2011, Pages 32–42, <https://doi.org/10.1093/icesjms/fsq149>

Price trend

Figure 29. **SMOOTH CALLISTA: FIRST-SALES PRICE IN SELECTED COUNTRIES* (JANUARY 2020 - DECEMBER 2022)**



Over the 36-month observation period from January 2020 to December 2022, the weighted average first-sales price of smooth callista in **Italy** was 4,99 EUR/kg. This was 169% higher than in **Portugal** (1,85 EUR/kg), and 17% above that in **Spain** (4,25 EUR/kg).

In **Italy** in December 2022, the average first-sales price of smooth callista was 5,10 EUR/kg, 2% higher than in December 2021 and December 2020. The lowest price in the past 36 months was registered in August 2022 at 4,87 EUR/kg for 138 tonnes, while the highest price of 5,10 EUR/kg for 234 tonnes was observed in December 2022.

In **Portugal** in December 2022, the average first-sales price of smooth callista was 2,40 EUR/kg, which is a 15% increase compared to December 2021 and 65% more than in December 2020. The lowest price experienced in the 36-month observation period was registered in April 2020 at 1,00 EUR/kg for 3,7 tonnes, while the highest price of 2,54 EUR/kg for 18,6 tonnes was observed in July 2022.

In **Spain** in December 2022, the average first-sales price of smooth callista was 8,29 EUR/kg. This was 46% more than in December 2021 and 81% more than in December 2020. During the period observed, the lowest price was registered in April 2020 at 2,02 EUR/kg for 7,4 tonnes, while the highest price of 8,73 EUR/kg for 1 tonne was recorded in March 2022.

2. Extra-EU imports

The weekly extra-EU import prices (weighted average values per week, in EUR per kg) for nine different species are examined every month. The three most relevant species in terms of value and volume remain consistent: fresh whole Atlantic salmon from Norway, frozen Alaska pollock fillets from China, and frozen tropical shrimp (*Penaeus* spp.) from Ecuador. The other six species change each month; three are chosen from the commodity group of the month, and three are selected randomly. The commodity group for this month is “Bivalves”, and the featured species are frozen scallops from the United States, prepared or preserved mussels from Chile and prepared or preserved clams, cockles and arkshells from Vietnam. The three randomly selected species this month are frozen fillets of coalfish from Iceland, frozen fillets of hake from United States and fresh or chilled fillets of Pacific/Atlantic/Danube salmon from Norway.

Data analysed in this section, “Extra-EU imports”, are extracted from EUMOFA, as collected from the European Commission³⁰.

Table 19. **EVOLUTION OF WEEKLY PRICE AND VOLUME OF THE THREE MOST RELEVANT FISHERIES AND AQUACULTURE PRODUCTS IMPORTED INTO THE EU**

Extra-EU Imports		Week 03/2023	Preceding 4-week average	Week 03/2022	Notes
Fresh whole Atlantic salmon imported from Norway (<i>Salmo salar</i> , CN code 03021400)	Price (EUR/kg)	7,84	8,39 (-7%)	7,08 (+11%)	Since week one of 2023 prices have shown a stable trend, which was also the case for the past three years. Prices ranged from 4,32 EUR/kg (week 44 of 2020) to 11,28 EUR/kg (week 16 of 2022), the highest observed in the past three years.
	Volume (tonnes)	10.164	9.526 (+7%)	10.932 (-7%)	Volumes ranged from 5.672 tonnes (week 15 of 2022) to 19.518 tonnes (week 35 of 2022) and showed an upward trend over the past three years. Since week one of 2022 weekly volumes have shown an upward trend.
Frozen Alaska pollock fillets imported from China (<i>Theragra chalcogramma</i> , CN code 03047500)	Price (EUR/kg)	1,19	2,01 (-41%)	3,14 (-62%)	Over the past three years, including 2023, weekly prices have shown a stable trend. Prices ranged from 1,04 EUR/kg (week 01 of 2023) to 4,03 EUR/kg (week 41 of 2022).
	Volume (tonnes)	9.074	5.824 (+56%)	2.508 (+262%)	Weekly volumes fluctuated from 587 tonnes (week 15 of 2020) to 9.074 tonnes (week three of 2020) and have shown an upward trend over the past three years.
Frozen tropical shrimp imported from Ecuador (genus <i>Penaeus</i> , CN code 03061792)	Price (EUR/kg)	5,17	5,56 (-7%)	6,51 (-21%)	Weekly prices were stable in the first weeks of 2023, as well as over the past three years. Prices ranged from 4,27 EUR/kg (week 38 of 2020) to 7,19 EUR/kg (week 41 of 2022).
	Volume (tonnes)	1.408	1.771 (-21%)	1.729 (-19%)	Volumes had a downward trend in 2022 in contrast to the past three years. Weekly volumes fluctuated from 713 tonnes (week six of 2020) to 4.925 tonnes (week 33 of 2021).

³⁰ Last update: 13.02.2023

Figure 30. **IMPORT PRICE OF FRESH AND WHOLE ATLANTIC SALMON FROM NORWAY, 2020 - 2023**

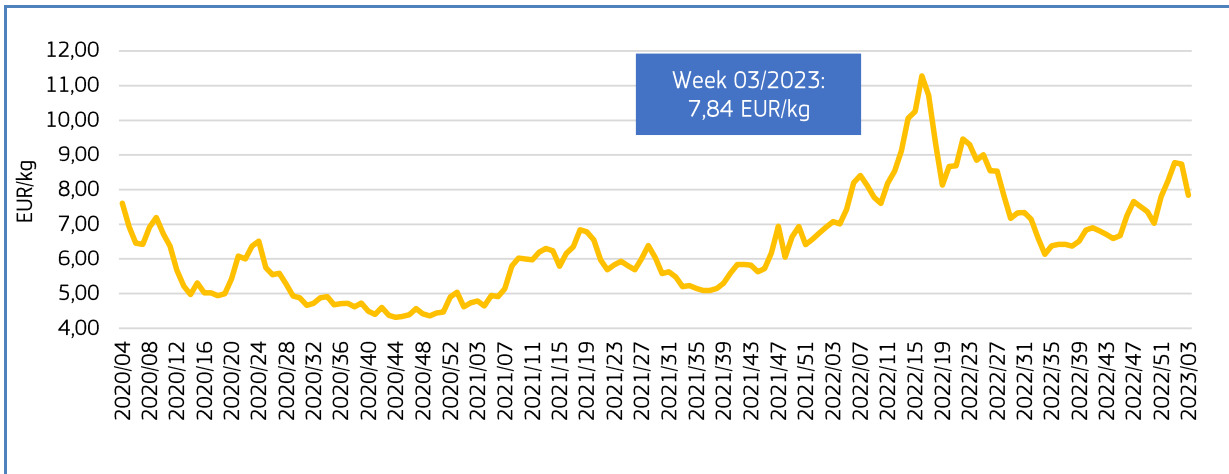


Figure 31. **IMPORT PRICE OF FROZEN ALASKA POLLOCK FILLETS FROM CHINA, 2020 - 2023**

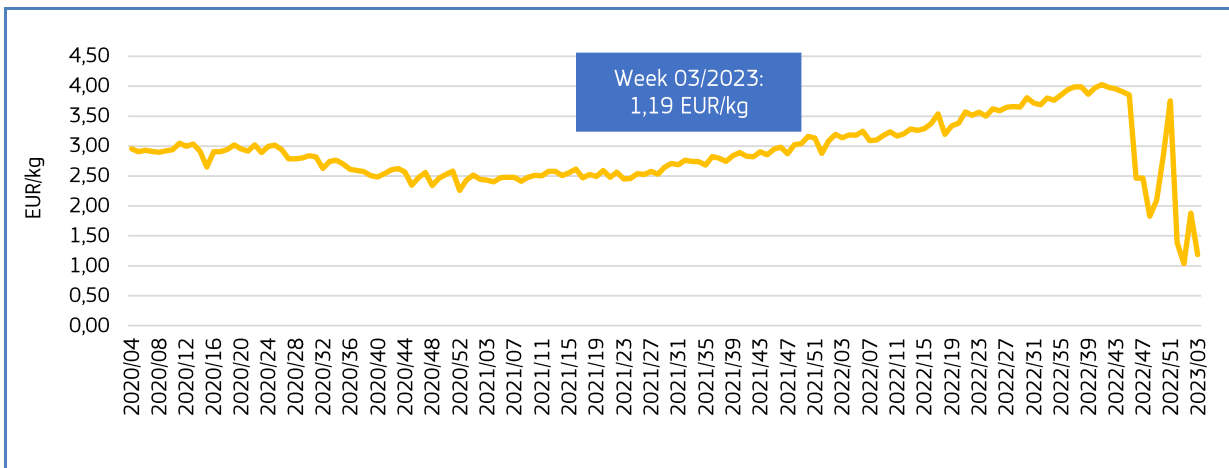


Figure 32. **IMPORT PRICE OF FROZEN TROPICAL SHRIMP FROM ECUADOR, 2020 - 2023**

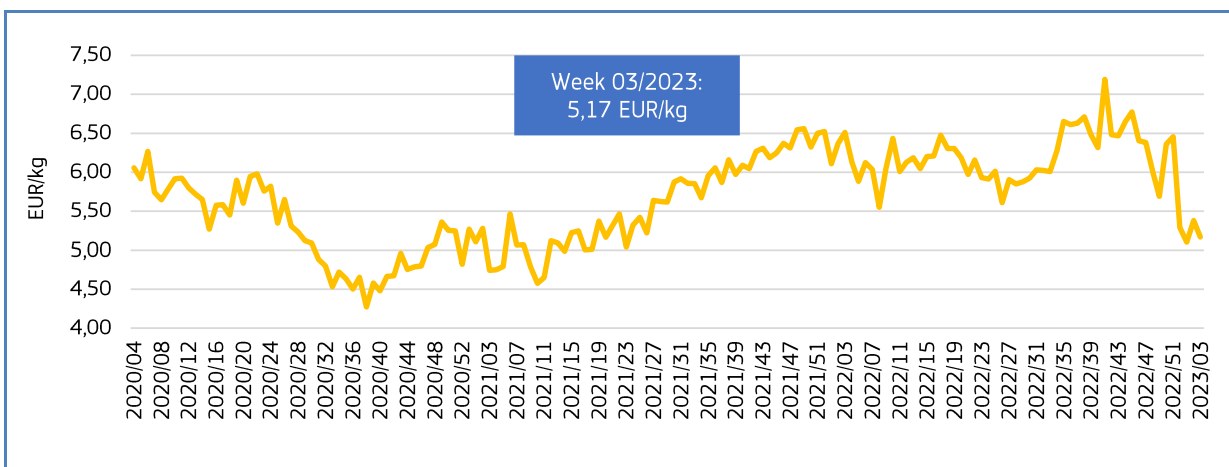


Table 20. **EVOLUTION OF WEEKLY PRICE AND VOLUME OF THIS MONTH'S THREE FEATURED COMMODITY PRODUCTS IMPORTED INTO THE EU**

Extra-EU Imports		Week 03/2023	Preceding 4-week average	Week 03/2022	Notes
Frozen scallops , incl. queen scallops, of the genera <i>Pecten</i> , <i>Chlamys</i> or <i>Placopecten</i> , even in shell from United States (excl. Coquilles St Jacques " <i>Pecten maximus</i> ", CN code 03072290)	Price (EUR/kg)	24,87	23,45 (+6%)	19,84 (+25%)	Prices have shown a stable trend over the past three years. Prices fluctuated from 10,18 EUR/kg (week three of 2021) to 39,01 EUR/kg (week 47 of 2022). The price spike could be attributed to a drop in supply from the previous year. 58% of the weekly prices were between 15,00 EUR/kg and 25,00 EUR/kg.
	Volume (tonnes)	0,9	3,5 (-74%)	0,05 (+1.898%)	Volumes have followed a stable trend over the past three years, with high fluctuations in supply from 0,001 tonnes (week 4 of 2022) to 115 tonnes (week 4 of 2020). 62% of the weekly supply was less than 10 tonnes.
Mussels , prepared or preserved, in airtight containers (excl. merely smoked) from Chile (CN code 16055310)	Price (EUR/kg)	3,06	3,54 (-13%)*	2,75 (+12%)	Stable trend from 2020 to 2023. Prices fluctuated from 1,63 EUR/kg (week 22 of 2021) to 5,03 EUR/kg (week 52 of 2022). 43% of the weekly prices were between 2,00 EUR/kg and 3,00 EUR/kg.
	Volume (tonnes)	79	13 (+496%)*	114 (-30%)	High fluctuations in supply from 2020 to 2023, varying from 0,04 tonnes (week 51 of 2021) to 566 tonnes (week 27 of 2022). Overall stable trend. 41% of the weekly volumes were less than 100 tonnes.
Clams, cockles and arkshells , prepared or preserved (excl. smoked) from Vietnam (CN code 16055600)	Price (EUR/kg)	1,85	1,69 (+10%)	1,94 (-5%)	Stable trend over the past three years. Prices ranged from 1,33 EUR/kg (week 09 of 2020) to 2,77 EUR/kg (week 44 of 2022). 62% of the weekly prices were between 1,50 EUR/kg and 2,00 EUR/kg.
	Volume (tonnes)	540	319 (+69%)	995 (-46%)	Stable trend over the past three years. Fluctuations in supply from 71 tonnes (week 02 of 2023) to 1.248 tonnes (week 52 of 2021). 51% of the weekly volumes were less than 600 tonnes.

*Data refers to weeks 52 of 2022 and weeks 01, 02 of 2023.

Figure 33. **IMPORT PRICE OF FROZEN SCALLOPS FROM UNITED STATES, 2020 - 2023**

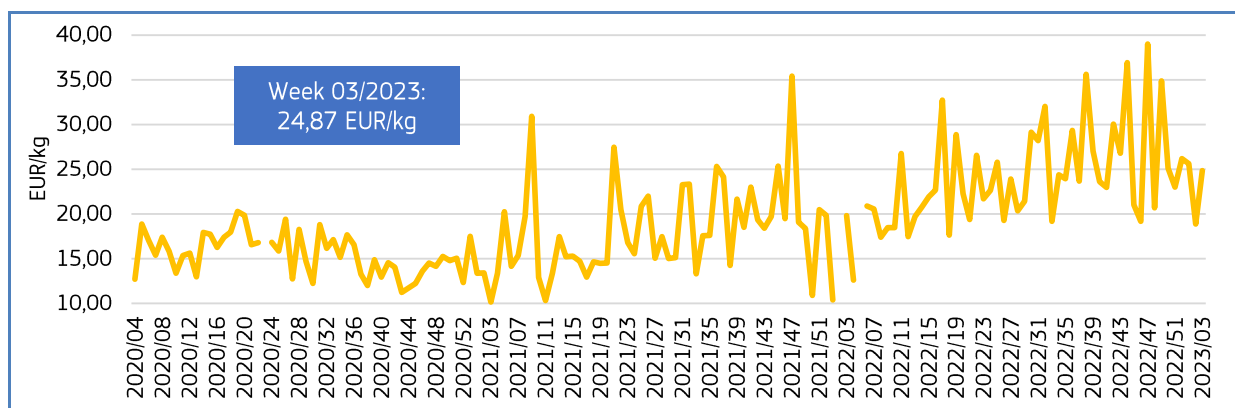


Figure 34. **IMPORT PRICE OF PREPARED OR PRESERVED MUSSELS FROM CHILE, 2020 - 2023**

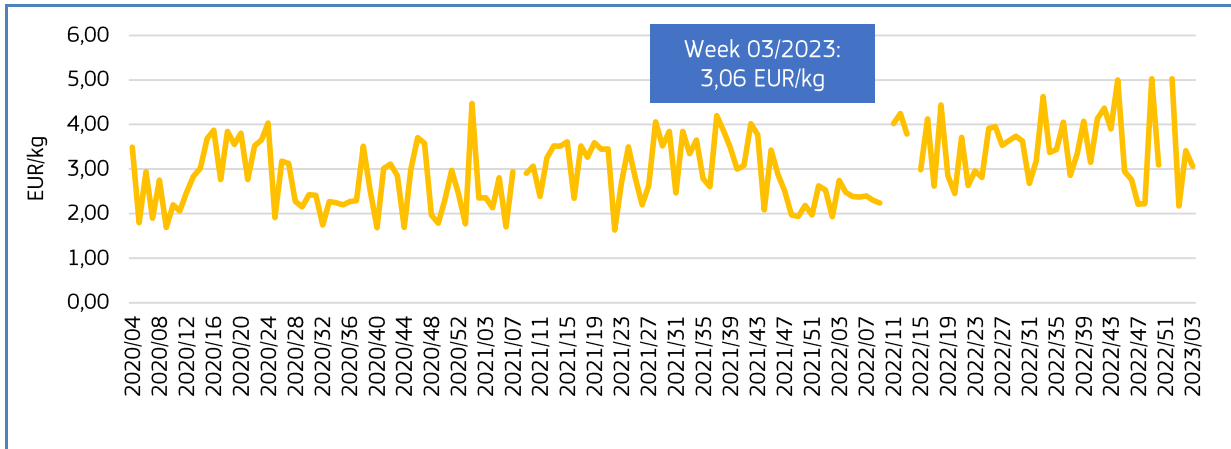
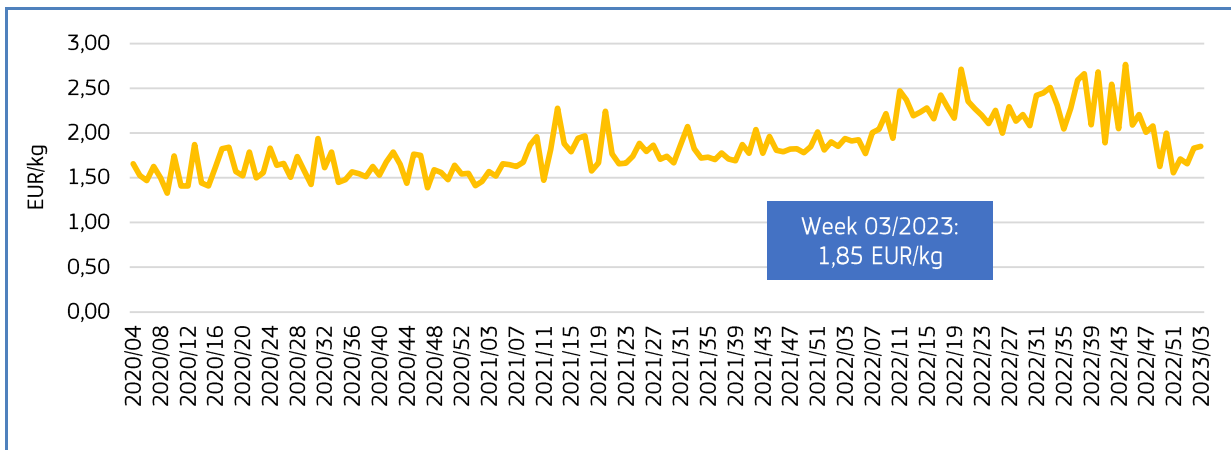


Figure 35. **IMPORT PRICE OF CLAMS, COCKLES AND ARKHELLS FROM VIETNAM, 2020 - 2023**



Volume and prices of frozen **scallop** from **United States** showed stable trend in the first three weeks of 2023. Price ranged from 18,90 EUR/kg to 25,64 EUR/kg, with weekly supply from 0,6 tonnes to 12 tonnes.

Since the beginning of the year, price of prepared or preserved **mussels** from **Chile** had a stable trend. At the same time, volume showed an upward trend. Price ranged from 2,17 EUR/kg to 3,41 EUR/kg, and supply from 19 tonnes to 79 tonnes.

Since week one of 2023 price of prepared of preserved **clams, cockles and arkshells** from **Vietnam** showed a stable trend, while at the same time weekly supply went down. Price ranged from 1,66 EUR/kg to 1,85 EUR/kg, and volume from 71 tonnes to 570 tonnes.

Table 21. **EVOLUTION OF WEEKLY PRICE AND VOLUME OF EU IMPORTS OF THREE OTHER FISHERIES AND AQUACULTURE PRODUCTS RELEVANT TO THE EU MARKET**

Extra-EU Imports		Week 03/2023	Preceding 4-week average	Week 03/2022	Notes
Frozen fillets of coalfish " <i>Pollachius virens</i> " from Iceland (CN code 03047300)	Price (EUR/kg)	5,77	5,90 (-2%)	4,83 (+19%)	Prices showed a stable trend from 2020 to 2023. Prices fluctuated from 2,36 EUR/kg (week 17 of 2020) to 6,56 EUR/kg (week 30 of 2022). 42% of the weekly prices were between 3,00 EUR/kg and 4,00 EUR/kg.
	Volume (tonnes)	243	211 (+15%)	185 (+32%)	High fluctuations in supply, varying from 67 tonnes (week 34 of 2020) to 665 tonnes (week 15 of 2022). Overall upward trend. 71% of the weekly volumes were less than 300 tonnes.
Frozen fillets of hake " <i>Merluccius</i> spp." (excl. cape hake, deepwater hake and Argentine hake) from United States (CN code 03047419)	Price (EUR/kg)	2,25	3,10 (-27%)	3,20 (-30%)	Stable trend over the past three years. Price fluctuations varying from 2,25 EUR/kg (week 03 of 2023) to 4,79 EUR/kg (week 41 of 2022). 43% of the weekly prices were between 2,50 EUR/kg and 3,00 EUR/kg.
	Volume (tonnes)	634	472 (+34%)	915 (-31%)	Upward trend over the past three years. High fluctuations in supply from 6 tonnes (week 24 of 2021) to 1.613 tonnes (week 27 of 2020). 68% of the weekly volumes were less than 400 tonnes.
Fresh or chilled fillets of Pacific/Atlantic/Danube salmon from Norway (<i>Oncorhynchus nerka</i> , <i>Oncorhynchus gorbuscha</i> , <i>Oncorhynchus keta</i> , <i>Oncorhynchus tshawytscha</i> , <i>Oncorhynchus kisutch</i> , <i>Oncorhynchus masou</i> and <i>Oncorhynchus rhodurus</i> , CN code 03044100)	Price (EUR/kg)	11,89	11,78 (+1%)	9,63 (+23%)	Stable trend from 2020 to 2023. Prices showed strong fluctuations in the 36 months analysed ranging from 6,76 EUR/kg (week 45 of 2020) to 13,33 EUR/kg (week 18 of 2022). 58% of the weekly prices were lower than 9,00 EUR/kg.
	Volume (tonnes)	1.145	1.012 (+13%)	1.055 (+9%)	From 2020 to 2023 weekly supply fluctuated from 406 tonnes (week 52 of 2020) to 1.599 tonnes (week 12 of 2021). Overall increasing trend. 47% of the weekly volumes were below 1000 tonnes.

Figure 36. **IMPORT PRICE OF FROZEN FILLETS OF COALFISH FROM ICELAND, 2020 - 2023**

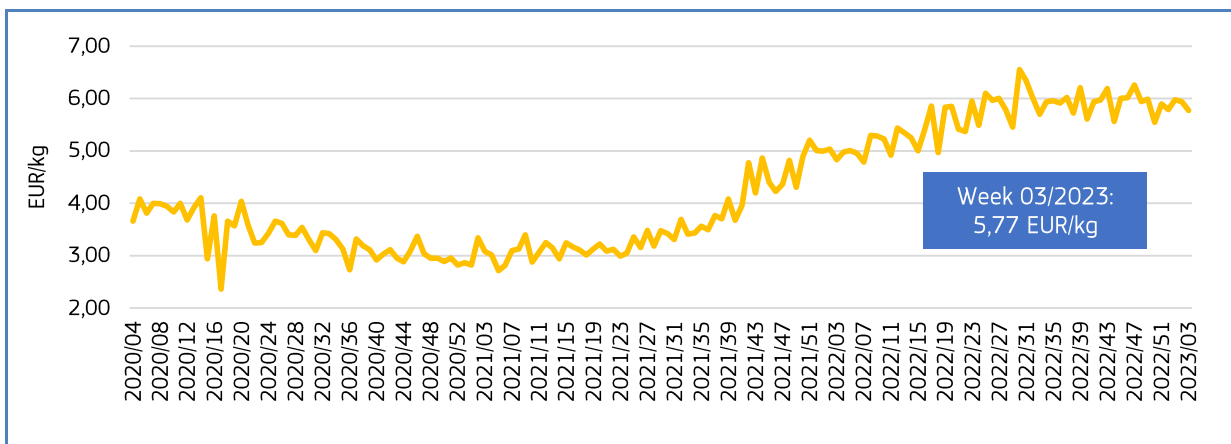


Figure 37. **IMPORT PRICE OF FROZEN FILLETS OF HAKE FROM THE UNITED STATES, 2020 - 2023**

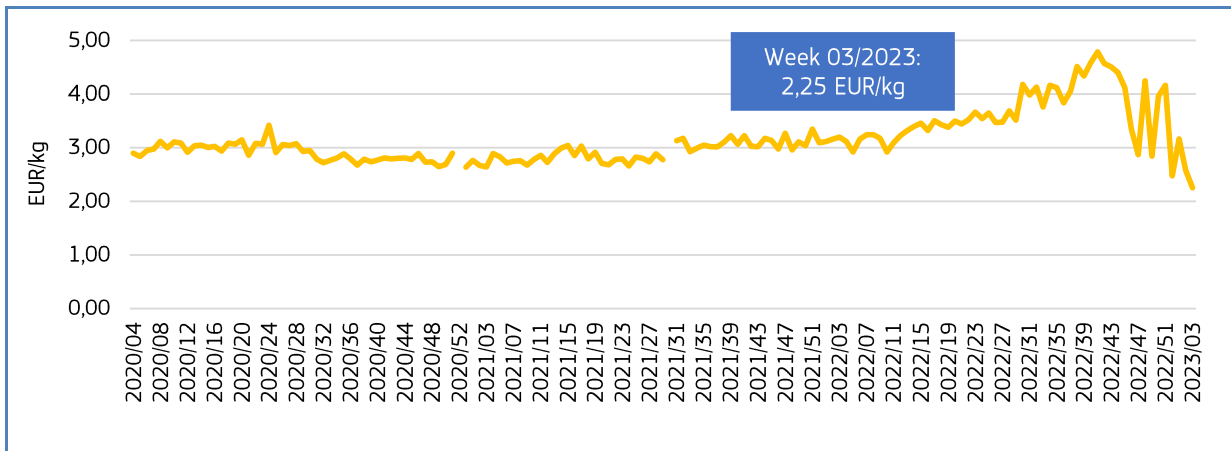
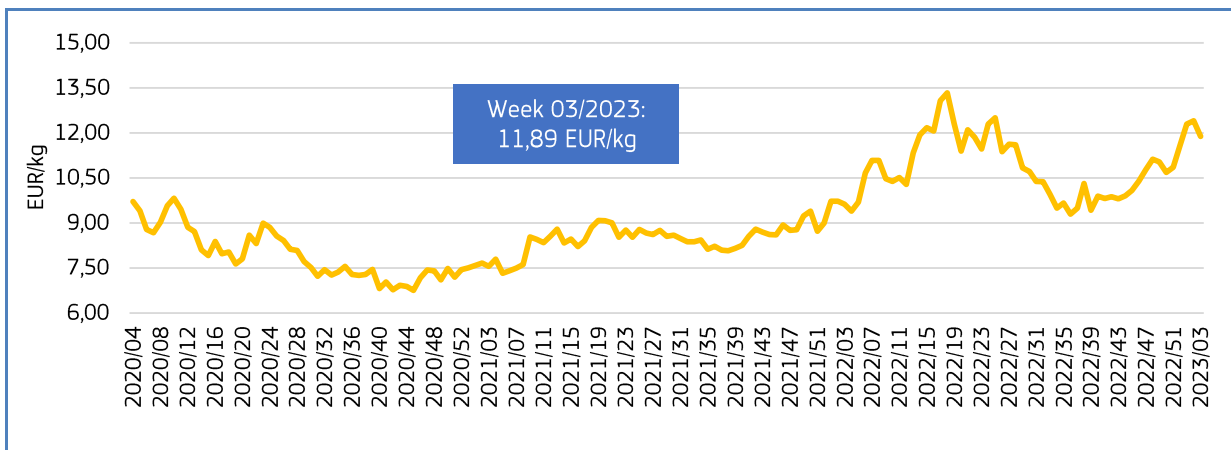


Figure 38. **IMPORT PRICE OF FRESH OR CHILLED FILLETS OF SALMON FROM NORWAY, 2020 - 2023**



In 2023, price of frozen fillets of **coalfish** from **Iceland** has shown a stable trend, while volume has shown an upward trend. Price has ranged from 5,77 EUR/kg to 5,98 EUR/kg and volume from 181 tonnes to 277 tonnes.

Price of frozen fillets of **hake** from **United States** has had a stable trend in 2023, while volume has increased. Price ranged from 2,25 EUR/kg to 3,16 EUR/kg and weekly supply from 483 tonnes to 895 tonnes.

Since the beginning of the year, price of fresh or chilled fillets of **salmon** from **Norway** has had a decreasing trend. At the same time weekly supply has increased. Price has ranged from 11,89 EUR/kg to 12,41 EUR/kg and supply from 1.009 tonnes to 1.165 tonnes.

3. Consumption

3.1. HOUSEHOLD CONSUMPTION IN THE EU

In December 2022 compared to December 2021, household consumption of fresh fisheries and aquaculture products declined in both volume and value in nearly all Member States analysed. The only exception was Poland, where despite the decrease in volume (5%), value still experienced an increase (14%). In Ireland and Portugal the value of household consumption remained stable, despite a fall in volumes (10% and 8%, respectively).

The highest drop was observed in Denmark, with a 33% decrease in volume and 24% in value. Mussel *Mytilus* spp. was the main species responsible for the decline, as the volume consumed of the species fell by 90%, while value decreased by 89%.

Table 22. **DECEMBER OVERVIEW OF THE REPORTING COUNTRIES (volume in tonnes and value in million EUR)**

Country	Per capita consumption 2020* (live weight equivalent, LWE) kg/capita/year	December 2020		December 2021		October 2022		December 2022		Change from December 2022 to December 2022	
		Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Denmark	35,17	1.176	20,95	1.206	22,94	826	15,19	814	17,36	33%	24%
France	32,56	29.592	355,74	27.213	343,24	16.369	206,35	23.634	317,96	13%	7%
Germany	12,81	9.563	141,83	9.489	131,58	4.724	72,28	6.747	105,31	29%	20%
Hungary	6,50	2.388	11,97	1.980	11,66	335	2,64	1.278	9,96	35%	15%
Ireland	21,22	1.431	22,40	1.234	20,68	771	12,65	1.115	20,80	10%	1%
Italy	29,99	40.676	438,25	41.975	494,33	18.701	228,78	35.743	457,80	15%	7%
Netherlands	20,70	3.933	71,47	4.070	78,45	2.240	39,29	3.398	73,49	17%	6%
Poland	13,33	12.101	65,94	10.652	72,82	3.124	24,60	10.169	83,13	5%	14%
Portugal	57,67	7.508	55,27	6.475	53,26	4.552	35,56	5.932	53,40	8%	0%
Spain	44,21	63.681	591,89	55.558	538,81	39.219	382,33	46.357	483,98	17%	10%
Sweden	23,99	1.220	15,48	1.134	15,15	631	8,93	820	13,00	28%	14%

Source: EUMOFA, based on Europanel (updated 23.11.2022).

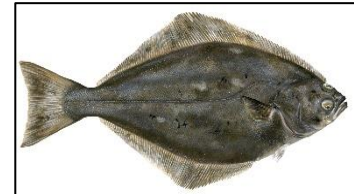
*Data on per capita consumption of all fish and seafood products for all EU Member States can be found at: https://www.eumofa.eu/documents/20178/521182/EFM2022_EN.pdf

Over the past three years, the average household consumption of fresh fisheries and aquaculture products in December has been above the annual average in both volume and value terms in most Member States, except for Denmark where the volume of consumption decreased slightly (2%).

The most recent weekly consumption data (up to **week 8 of 2023**) are available on the EUMOFA website and can be accessed [here](#).

3.2. Fresh halibut

Habitat: The species belongs to the family of Pleuronectidae. Halibut is a demersal species living in a depth range of 50 m - 2.000 m. Adults are mainly benthic, but occasionally also appear in the pelagic region. They mainly feed on other fish such as cod, haddock, pogge, sand-eels, herring and capelin, but also take cephalopods, large crustaceans and other bottom-living animals. They are batch spawners. Due to a slow growth rate and late onset of sexual maturity, halibut populations can be seriously affected by overfishing³¹.



Catch area: Northwest Atlantic, from southwestern Greenland and Labrador in Canada to Virginia in USA; and Northeast Atlantic including the Bay of Biscay to the Spitsbergen, the Barents Sea, Iceland and eastern Greenland.

Catching countries in the EU: Denmark, Spain, France, Germany³².

Production method: Caught and farmed (only in Norway).

Main consumers in the EU: Denmark, Sweden.

Presentation: Fresh, frozen, smoked.

Preservation: Fresh, dried, salted, smoked, frozen.

Means of preparation: Steamed, fried, broiled, boiled, microwaved and baked³³.

3.2.1. Overview of household consumption in Denmark and Sweden

Denmark is the third EU Member State with the highest per capita apparent consumption³⁴ of fisheries and aquaculture products above the EU-27 average. In 2020, per capita apparent consumption in Denmark was 35,17 kg, after a 16% decrease from 2019. This was 51% higher than the EU average (23,28 kg LWE).

In Sweden consumption was registered as 23,99 kg in 2020, after a 5% decrease compared to the previous year. This is 3% higher than the EU average per capita apparent consumption of fisheries and aquaculture products.

See more on per capita apparent consumption in the EU in Table 22.

During the period January 2020–December 2022, the average retail price of halibut was 37,00 EUR/kg in Denmark, with a total amount of 242 tonnes sold. The average price in Sweden was 29% lower than in Denmark (26,32 EUR/kg), with the total amount consumed 43% lower, at 139 tonnes of LWE.

We have covered **halibut** in previous *Monthly Highlights*:

First Sales: Atlantic halibut: Norway 10/2016; Greenland halibut: Denmark 6/2020; France 6/2020; Spain 6/2020; Norway 4/2016, 11/2013.

Consumption: Denmark 9/2020; Sweden 9/2020.

Extra-EU Imports: Faroe Islands 1/2018; Greenland 2/2020, 3/2018, 1/2018; Norway 7/2022, 6/2021, 1/2021, 4/2019, 1/2019, 3/2018, 1/2018

³¹ <https://www.fishbase.se/summary/Hippoglossus-hippoglossus.html>

³² <https://www.eumofa.eu/documents/20178/411339/MH+9+EN.pdf/5f257beb-34d7-aa31-5d9d-fb77ba93a582?t=1603727110688>

³³ <https://www.fishbase.se/summary/Hippoglossus-hippoglossus.html>

³⁴ Apparent consumption³⁴ is calculated by using the supply balance sheet that provides an estimate of the supply of fisheries and aquaculture products available for human consumption at EU level. The calculation of the supply balance sheet is based on the equation: $Apparent\ consumption = ((total\ catches - industrial\ catches) + aquaculture + imports) - exports$. Catches targeted for fishmeal (industrial catches) are excluded. Non-food use products are also excluded from imports and exports. It is worth underlining that the methodologies for estimating apparent consumption at EU and Member State levels are different, the first based on data and estimates as described in the Methodological background, the latter also requiring the adjustment of abnormal trends due to the higher impact of stock changes.

Figure 39. PRICES OF FRESH HALIBUT PURCHASED BY DANISH AND SWEDISH HOUSEHOLDS

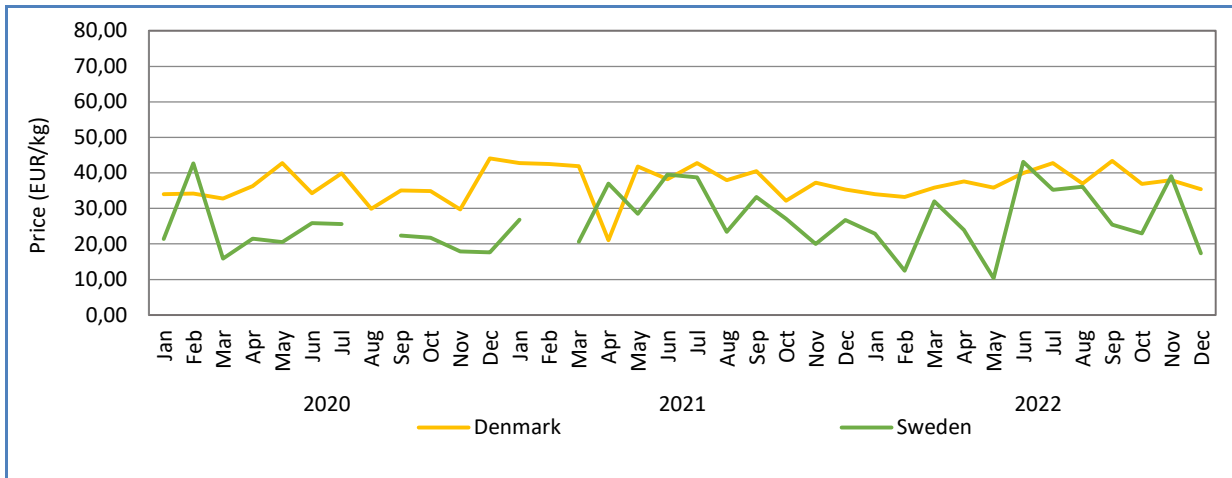
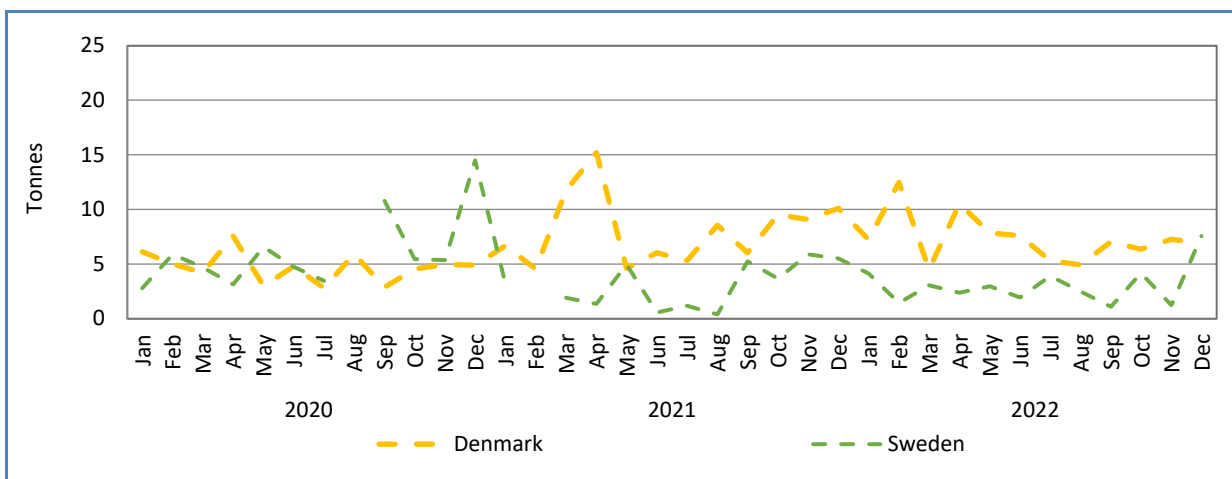


Figure 40. HOUSEHOLD PURCHASES OF FRESH HALIBUT IN DENMARK AND SWEDEN



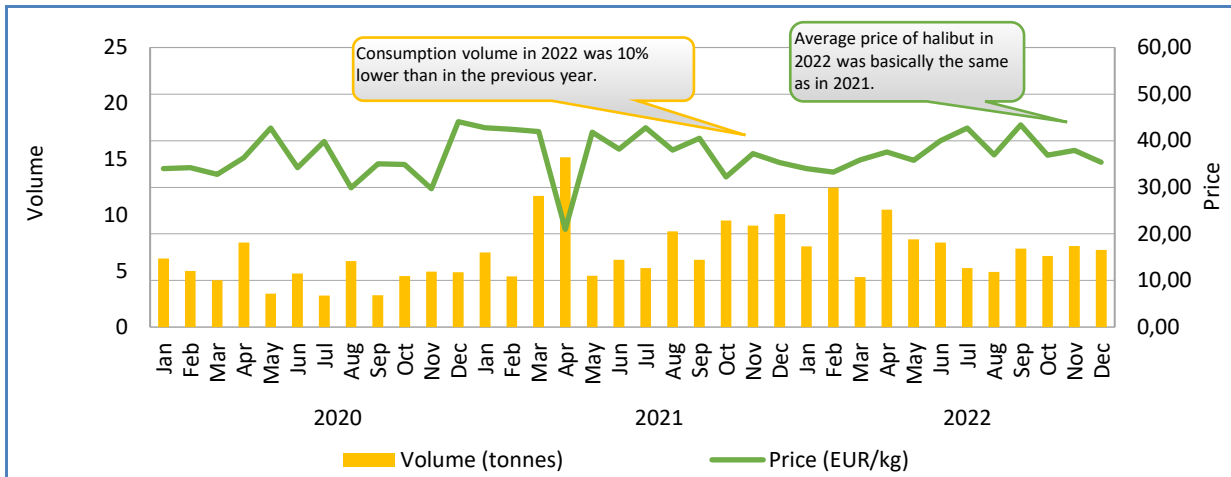
3.2.2. Household consumption trends in Denmark

Long-term trend (January 2020 to December 2022): Fluctuating volumes and prices.

Yearly average price: 35,65 EUR/kg (2020), 37,85 EUR/kg (2021), 37,48 EUR/kg (2022).

Yearly consumption: 57 tonnes (2020), 97 tonnes (2021), 88 tonnes (2022).

Figure 41. **RETAIL PRICE AND VOLUME OF FRESH HALIBUT PURCHASED BY HOUSEHOLDS IN DENMARK, JANUARY 2020 – DECEMBER 2022**



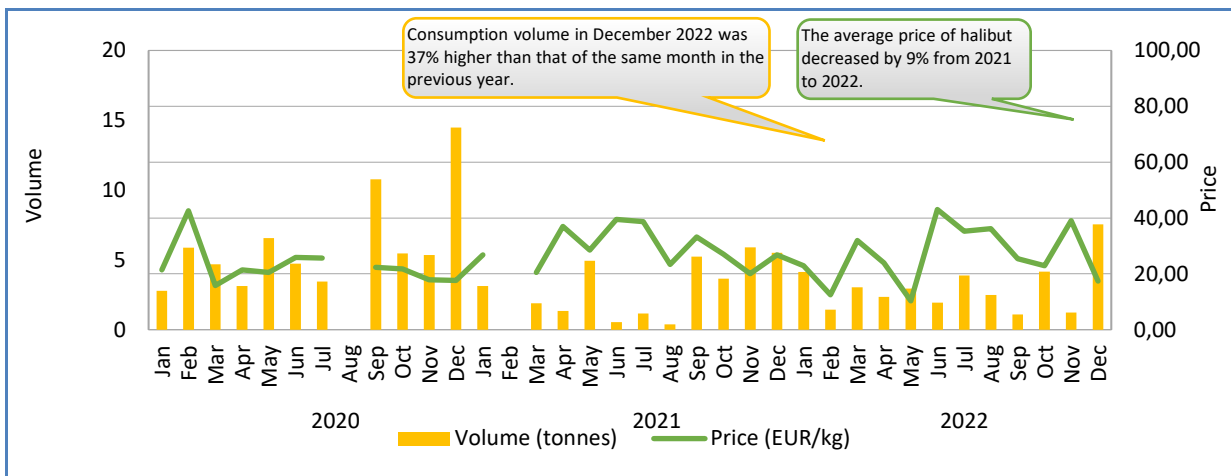
3.2.3. Household consumption trends in Sweden

Long-term trend (January 2020 to December 2022): Fluctuating volumes and prices.

Yearly average price: 23,00 EUR/kg (2020), 29,23 EUR/kg (2021), 26,74 EUR/kg (2022).

Yearly consumption: 67 tonnes (2020), 36 tonnes (2021), 36 tonnes (2022).

Figure 42. **RETAIL PRICE AND VOLUME OF FRESH HALIBUT PURCHASED BY HOUSEHOLDS IN SWEDEN, JANUARY 2020 – DECEMBER 2022**



4. Case study: Production and processing of fishery and aquaculture products in China

China stretches approx. 5.250 km from east to west and 5.500 km from north to south, with a coastline of approximately 14.000 km³⁵. The country is bounded by the Yellow Sea and East China Sea to the east, and the South China Sea to the southeast.

China's role in the world economy was relatively small until the late 1970s, when interaction with the international economy increased dramatically³⁵. Today, China is a dominant figure in world trade and is one of the principal producers of fishery and aquaculture products (FAPs)³⁶. According to the Food and Agriculture Organization (FAO), China accounted for 39% of the world's aquaculture and fishery production in 2020, leading global production in aquaculture (57%) and fisheries (15%)³⁷.

In 2020, fishery production in China amounted to more than 13 million tonnes³⁷. Marine fishes nei³⁸, freshwater fishes nei, largehead hairtail, Japanese anchovy, and Gazami crab made up the bulk of Chinese catches.

In 2022 (up to and including November), China exported 3,3 million tonnes of FAPs at a value of about EUR 19 billion and imported nearly 5,9 million tonnes at a value of EUR 20 billion³⁹. China exported a great number of *unidentified* species (other marine fish)⁴⁰, accounting for 31% and 23% of total export volume and value respectively. Most of these exports consisted of "other whole fish or in pieces" (41%) and "frozen other fish" (16%). Most imports of FAPs to China in 2022 were frozen fish (Alaska pollock, other marine fish, catfish, salmon, cod), shrimps or prawns and cephalopods.

During the first eleven months of 2022, the EU exported 155.766 tonnes of FAPs to China at a value of EUR 671 million and imported from China 357.325 tonnes of FAPs at a value of EUR 1,7 billion⁴¹. Nearly all the main FAPs exported to China from the EU were whole/gutted and frozen (coldwater shrimp, Greenland halibut, blue whiting, cod and squid). Alaska pollock, Skipjack tuna, cod, other cephalopods and squids were the main MCSs imported to the EU from China. A sound part of the FAPs exported to China from the EU and other countries are processed and re-exported back to the EU and other markets (Section 4.1).

In 2020, estimated per capita consumption of FAPs in rural and urban households in China was 10,3 kg and 16,6 kg respectively⁴². In the period 2015-2019, consumption of FAPs grew faster in rural areas than in urban areas and consumers in rural areas are expected to drive the increase in consumption of FAPs in China in the years ahead⁴³.



Source: CIA, the world factbook.

³⁵ Feuerwerker, A. (2022). China. *Britannica*. <https://www.britannica.com/place/China>

³⁶ Food and Agriculture Organization (FAO). <https://www.fao.org/state-of-fisheries-aquaculture/2020/en>

³⁷ FAO statistics.

³⁸ Unidentified fishes belonging to the superclass Osteichthyes, or bony fish. Both "marine fishes nei" and "freshwater fishes nei" belong to this superclass, "nei" = "not elsewhere included" and represents miscellaneous fishes

³⁹ EUMOFA elaboration of data from Global Trade Atlas - IHS Markit.

⁴⁰ This was an aggregation of 16 CN items, namely 030199 (unidentified live fish), 030249, 030289 (unidentified fresh fish, excl. offal), 030359, 030389 (unidentified frozen fish, excl. offal), 030449, 030459, 030489, 030499 (fresh and frozen fillets and other cuts of unidentified fish), 030539, 030549, 030554, 030559, 030569 (dried, salted or in brine, or smoked unidentified fish, incl. fillets, excl. edible fish offal), 160419 (unidentified fish, whole or in pieces, but not minced, prepared or preserved), and 160420 (unidentified fish prepared or preserved).

⁴¹ EUMOFA elaboration of data from Eurostat-Comext.

⁴² Statista. <https://www.statista.com/statistics/1128701/china-per-capita-seafood-consumption-volume-in-rural-households/> and <https://www.statista.com/statistics/975173/china-average-per-capita-aquatic-product-urban-consumption/>

⁴³ Agriculture and Agri-Food Canada. <https://agriculture.canada.ca/en/international-trade/market-intelligence/reports/sector-trend-analysis-fish-and-seafood-trends-china>

4.1 Fisheries in China

China has a long tradition of harvesting marine resources and is the largest producer of marine fisheries in the world⁴⁴. The coastal waters around China used to provide rich fishing grounds. However, decades of overfishing have led to the decline of many important marine resources⁴⁵. Thirty years ago, China hardly classified as a fishing nation, but the Fisheries Law of 1986⁴⁶ created a turning point for the industry through the privatisation of fishing vessels and growth of markets where FAPs are sold. Between 1986 and 1995 this change led to an increase of almost 200% in catch volume⁴⁵.

While the reforms were effective, they led to overfishing of large commercial species such as yellow croaker and largehead hairtail, causing a decline in their stocks⁴⁵. In 1999, the additional fishing capacity provided by privatisation of fishing vessels already failed to deliver an increase in overall catch which plateaued around 12 million tonnes annually. This meant that the coastal fleet had to invest more resources to maintain output and was not sustainable in the long run⁴⁵. In addition, the decline of important stocks created a shift in the composition of catches. Today, approx. 35% of catches in China's exclusive economic zone (EEZ) consist of small, low-value fish unfit for human consumption⁴⁷.

In the mid-1990s, China implemented management systems such as restrictions on fishing gear and fishing methods, fishing vessel and engine power quotas, and fishing closure seasons⁴⁴. China has also adopted management measures such as marine fishing permits, fishermen relocation, juvenile fish protection and stock enhancement, and fishing closure areas. Given China's prominent role in the global fisheries sector, sustainable management of Chinese fisheries is critical for the global supply of FAPs, food security, and trade in FAPs⁴⁸.

In 2017, the Ministry of Agriculture and Rural Affairs (MARA) implemented Total Allowable Catch (TAC) pilots in all coastal provinces and required that all provinces have at least one TAC pilot in effect by 2020⁴⁴. Most of the pilots focused on one species, which was not necessarily a commercially fished species, and many pilots were not extended or widened to cover more species⁴⁷. The pilots were also too short to set up effective monitoring systems for the species. However, the pilots generated valuable experience for the development of a national TAC system and have helped create a path towards the development of scientific TACs in China⁴⁴.

Main commercial species

China produces FAPs through aquaculture, inland fisheries, coastal fisheries and distant water fisheries (DWF)⁴⁷. Commercial fisheries in China target over 100 marine species, including largehead hairtail (7% of total captures over the years 2011–2020), Japanese anchovy (5%), gazami crab (3%), and scads (4%)⁴⁹. In 2014, the most common fishing gear used was the trawl net (48% of catches), followed by gillnets (22%), stow nets (13%), purse seines (8%), lines and hooks (3%) and other fishing gears (6%)⁴⁹.

In inland waters, more than 700 freshwater fish and 60 migratory species are found⁴⁹. The major commercial species are different types of carps and freshwater fishes (71% of total captures over the years 2011–2020, species cannot be identified in FAO statistics), various molluscs (12%), oriental river prawn (6%), Siberian prawn (6%) and Chinese mitten crab (2%).

In 2020, fisheries production in China amounted to more than 13 million tonnes³⁷. The bulk of Chinese catches came from Pacific fisheries (87%, primarily from the Northwest Pacific), while the remainder was mainly supplied by inland fisheries (11%). Marine and freshwater fishes nei made up most of the catches (31%), followed by largehead hairtail (7%), Japanese anchovy (5%) and Gazami crab (3%) (Figure 43).

⁴⁴ Natural Resources Defence Council, Environmental Defence Fund, Qingdao Marine Conservation Society. (2021). Progress of China's TAC system. <https://www.edf.org/sites/default/files/documents/Progress%20of%20Chinas%20TAC%20System%20report%2C%20English%2C%20May%202021.pdf>

⁴⁵ Damin, T. (2018). Restoring China's coastal fisheries. *China dialogue ocean*. <https://chinadialogueocean.net/en/fisheries/1826-restoring-chinas-coastal-fisheries/>

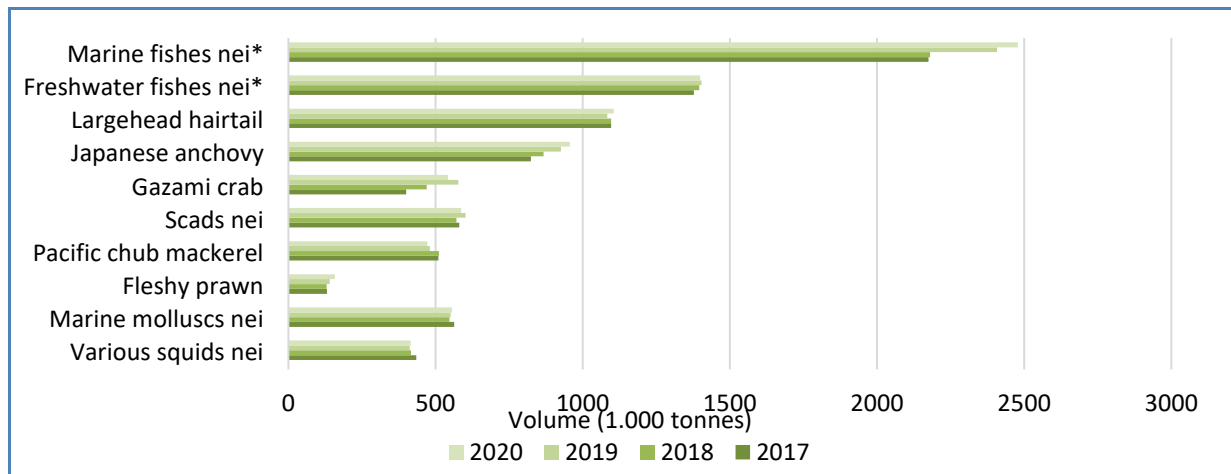
⁴⁶ International labour organization. Natlex.

http://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=37829&p_country=CHN&p_count=1183&p_classification=19&p_classcount=3
⁴⁷ Chun, Z. (2022). China's five-year plan for fishing focuses on aquaculture. *China dialogue ocean*. <https://chinadialogueocean.net/en/fisheries/chinas-five-year-plan-for-fishing-focuses-on-aquaculture/>

⁴⁸ Su, S. et al. (2019). Evolution of marine fisheries management in China from 1949 to 2019. *Fish and Fisheries*. DOI 10.1111/faf.12439.

⁴⁹ FAO. (2017). Fishery and Aquaculture Country Profile, China. <https://www.fao.org/fishery/en/facp/chn?lang=en>

Figure 43. **TOP 10 FISHERY SPECIES IN CHINA**



Source: FAO. *Species in this category were classified as "Osteichthyes".

Distant Water Fisheries (DWFs)

To meet the rising demand for FAPs, China's fishing fleet must range outside domestic waters to find marine resources to harvest⁵⁰. China's distant water fisheries often take place in the territorial waters of low-income countries. In 2016, 84% of the industrialised fishing effort in the EEZs of low-income nations came from other countries and 78% came from vessels flagged to higher- and upper-middle-income nations⁵¹.

China's DWF fleet is the largest in the world, and as such is thought to have a significant impact on the environment and socioeconomic factors in developing countries⁵⁰. According to estimates made in 2017-2018 by ODI (Overseas Development Institute), China's DWF fleet was 5-8 times larger than previous estimates, with 16,966 identified vessels belonging to the Chinese DWF fleet. Trawlers were the most common vessels identified in the dataset (38%), followed by long-liners (21%), squid-jiggers (13%), seiners (7%) and gillnetters (7%). The remaining vessels identified were other types or had supporting roles (14%). Most of the vessels operated in the northwest Pacific, but also in the western, central and southeast Pacific.

Processing of fishery and aquaculture products

China plays a central role as an intermediate trade and processing hub in the global supply chain for FAPs⁵². A substantial amount of the products processed in China are devoted to satisfying export markets, and a significant portion of Chinese trade of FAPs is related to re-export⁵³ (nearly 75%)⁵⁴. Re-export of FAPs sometimes complicates tracing and correct labelling of products⁵⁴. Nearly all products that are re-exported by China come from fisheries (most DWF catches are also exported), suggesting that most imports of aquaculture products go to domestic consumption⁵⁴.

The success of China's processing industry can be attributed to several factors, such as improved preservation technologies, low transport costs, low wages and a favourable exchange rate⁵⁴. Processing of FAPs is labour-intensive, which makes China highly competitive in this market segment. In addition, low transport costs have made it easy for manufacturers to move the processing segment of the value chain to places with low costs.

⁵⁰ Gutiérrez, M. et al. (2020). China's distant-water fishing fleet. ODI. https://cdn.odi.org/media/documents/chinesedistantwaterfishing_web.pdf

⁵¹ McCauley, D.J., et al. (2018). Wealthy countries dominate industrial fishing. *Science Advances*. <https://www.science.org/doi/pdf/10.1126/sciadv.aau2161>

⁵² Abbott, J.K., et al. (2021). Feeding the dragon: The evolution of China's fishery imports. *Marine Policy*, DOI 10.1016/j.marpol.2021.104733.

⁵³ The practice of importing seafood, processing it, and then exporting it.

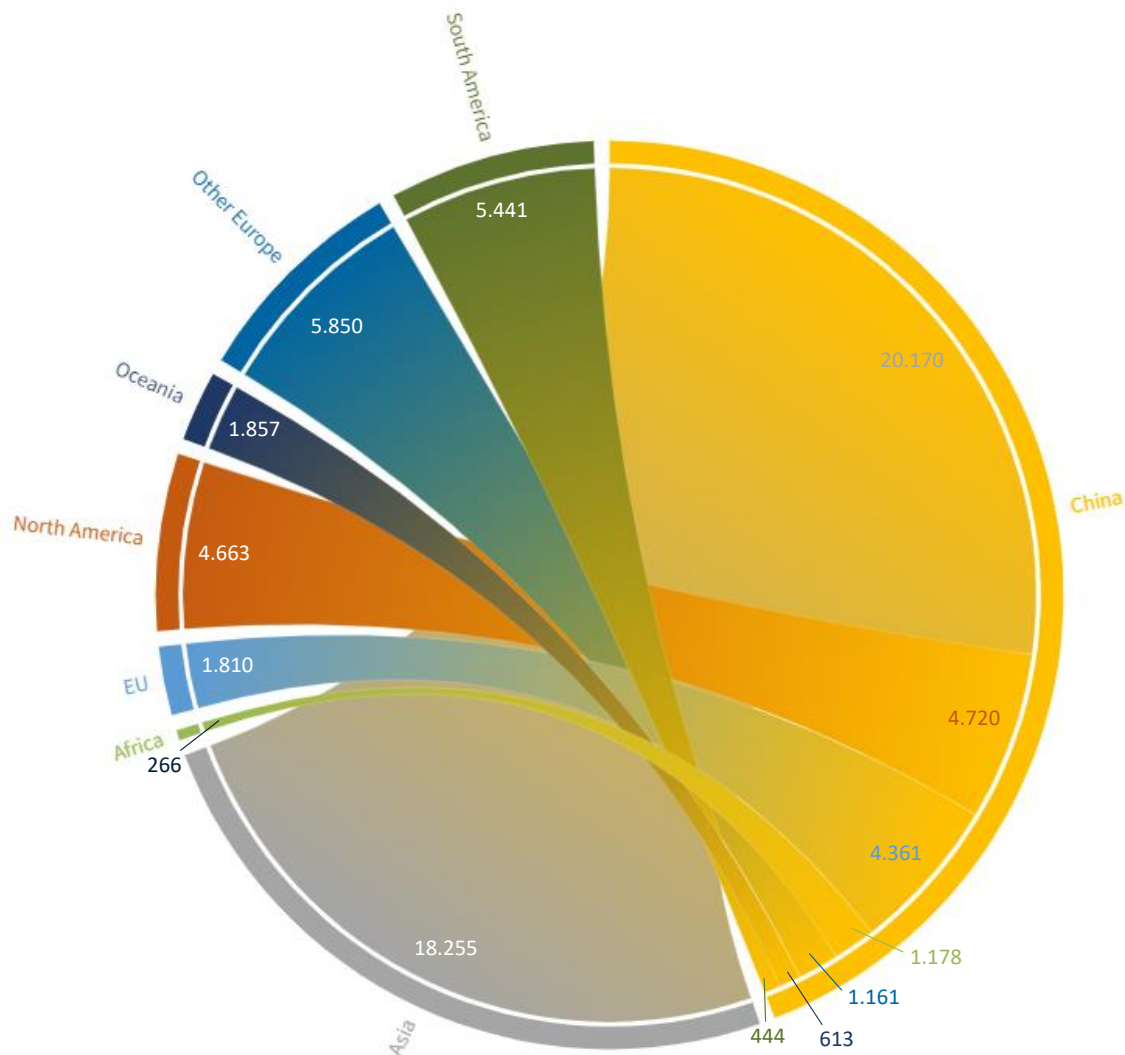
⁵⁴ Asche, F. et al. (2022). China's seafood imports – not for domestic consumption? *Science*. DOI 10.1126/science.abl4756.

4.2 International trade

FAPs constitute about 10% of the value of global food trade. Nearly 40% of the volume of food products is internationally traded, making these products one of the most highly traded commodities in the world⁵⁵. Global trade flows of FAPs to and from China in 2022 is visualised in Figure 44. The trade flows represent the value of FAPs exported from and imported to China globally. The figure shows that the value of Chinese exports of FAPs to Africa, Asia, the EU and North America are greater than the value of imported FAPs from these countries, while the value of exported FAPs to Oceania, other European countries (including Russia) and South America is lower than the value of imported FAPs from these countries.

Species such as Alaska pollock, cod, Pacific salmon, flatfish, tuna and haddock are imported to China primarily for processing and re-export, while shrimps and prawns, crab, hairtails, catfish, blue whiting and Atlantic salmon mainly go to domestic consumption⁵⁴.

Figure 44. GLOBAL TRADE FLOWS OF FAPs TO AND FROM CHINA IN 2022



Source: EUMOFA elaboration of data from Global Trade Atlas – IHS Markit.

⁵⁵ Gephart, J.A., Pace, M.L. (2015). Structure and evolution of the global seafood trade network. *Environmental Research Letters*. DOI 10.1088/1748-9326/10/12/125014.

It is worth noting that COVID-19 had a huge impact on Chinese imports of FAPs, especially from Russia. During the pandemic, China banned imports of Russian FAPs after an alleged discovery of COVID-19 traces on Russian fish packaging in October 2020, which resulted in a 70% reduction of Russian FAP exports to China in 2021⁵⁶.

Export

In 2021, China was the second largest exporter of FAPs (after the EU) and exported 3,7 million tonnes at a value of EUR 18 billion (Table 23). Compared to 2020, this was a 0,4% decrease in terms of volume, but an increase of 12% in terms of value. So far in 2022 (up to and including November), China has exported 3,3 million tonnes of FAPs at a value of about EUR 19,4 billion. Compared to the same period (Jan-Nov) in 2021, this was a 1% decrease in volume and a 20% increase in value. In 2022 most exports from China went to Japan (14%), the USA (11%), the EU (11%), and South Korea (11%).

In 2022, China exported a great number of unidentified species (other marine fish)⁴⁰ which accounted for 31% of total export volume and 23% of total export value. This MCS mainly consisted of other fish whole or in pieces (41%), frozen other fish (16%), and other prepared or preserved fish (11%). Other cephalopods accounted for 16% of export volume and 21% of export value, most products in this MCS were frozen cuttlefish and squid (64%) and prepared or preserved cuttlefish and squid (35%), which represented 51% and 47% of the value respectively.

All Alaska pollock and most mackerel (72%) were exported frozen, while products in the MCS miscellaneous tuna mainly consisted of skipjack and bonito tuna whole or in pieces (89%) or in frozen fillets (11%). Miscellaneous shrimp was the third most valuable MCS, representing 8% of total export value. Most products of this MCS were prepared or preserved shrimps and prawns (64%) and frozen shrimps and prawns (29%). Clams were mainly exported prepared or preserved (55%) and fresh or chilled (41%). Prepared or preserved sardines, sardinella and brisling or sprats made up 83% of the MCS miscellaneous small pelagics. Cod (as fillets) and tilapia (as whole fish and fillets) were mainly exported frozen.

Table 23. **TOTAL EXPORTS BY MAIN COMMERCIAL SPECIES FROM CHINA (volume in 1.000 tonnes, value in million EUR)**

MCS	2018		2019		2020		2021		2022*	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Other marine fish	1.200	3.968	1.295	4.325	1.191	4.147	1.229	4.615	1.029	4.531
Other cephalopods	508	2.779	473	2.794	434	2.747	533	3.437	525	4.001
Mackerel	357	618	372	692	282	476	259	471	305	600
Alaska pollock	287	583	305	766	213	535	189	470	198	674
Miscellaneous tuna	120	516	137	554	147	584	152	728	140	860
Miscellaneous shrimp	212	2.000	161	1.578	156	1.406	176	1.741	124	1.569
Clam	152	297	152	312	130	260	141	298	110	301
Cod	127	710	129	762	105	583	98	516	96	710
Tilapia	248	565	186	410	121	239	105	221	91	188
Miscellaneous small pelagics	79	134	100	160	122	189	117	197	91	234
Other	2.138	7.389	2.150	6.653	826	5.059	711	5.411	628	5.771
Total	5.427	19.558	5.460	19.005	3.726	16.226	3.710	18.104	3.335	19.439

Source: EUMOFA elaboration of data from Global Trade Atlas – IHS Markit. *Up to and including November 2022.

⁵⁶ IntraFish. (2022). China's port closures cost Russian pollock companies \$400 million, but the industry sees a silver lining. <https://www.intrafish.com/trade/chinas-port-closures-cost-russian-pollock-companies-400-million-but-the-industry-sees-a-silver-lining/2-1-1153708>

Import

In 2021 China was the biggest importer of FAPs in the world and imported 5,7 million tonnes at a value of EUR 15 billion (Table 24). Compared to 2020 this was an increase of 1% in volume and 12% in value. In 2022 (up to and including November), China has imported around 5,9 million tonnes of FAPs at a value of EUR 20 billion. Compared to the same period (Jan-Nov) in 2021, this was an increase of 13% and 52% in volume and value respectively. Most Chinese imports in 2022 originated in Peru (17%), Russia (16%), and Vietnam (11%). Chinese imports from the EU accounted for 1% of import volume and 2% of value.

In 2022, the most imported MCS to China was fishmeal, accounting for 29% of imported volume but only 13% of the value. Miscellaneous shrimp was the MCS with the highest value in 2022 (24% of total value) and accounted for 13% of import volume. Almost all imported products in this MCS were frozen shrimps and prawns (99%). The same was true for frozen imports of Alaska pollock (100%), other marine fish (>70%), other cephalopods (90%) and freshwater catfish (79%). Imports in the MCS salmon predominately consisted of frozen Pacific salmon (62%), followed by fresh Atlantic salmon (27%), and frozen Atlantic salmon (7%). Products in the MCS other non-food use primarily consisted of seaweed and other algae unfit for human consumption (96%). All cod was imported frozen.

Table 24. **TOTAL IMPORTS BY MAIN COMMERCIAL SPECIES TO CHINA (volume in 1.000 tonnes, value in million EUR)**

MCS	2018		2019		2020		2021		2022*	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Fishmeal	1.466	1.896	1.424	1.763	1.430	1.712	1.836	2.320	1.717	2.719
Miscellaneous shrimp	206	1.287	666	3.719	556	2.832	622	3.225	785	4.950
Alaska pollock	579	571	693	860	618	646	396	434	607	1.407
Other marine fish	537	930	696	1.317	689	1.263	581	1.136	570	770
Other cephalopods	227	552	385	878	305	653	483	938	299	830
Freshwater catfish	122	270	242	456	240	343	147	241	237	552
Salmon	299	1.150	245	1.018	129	533	143	770	182	1.229
Seaweed and other algae	139	163	155	220	150	167	161	198	162	354
Other non-food use	251	347	265	361	119	127	160	163	154	258
Cod	190	618	175	575	155	442	145	419	139	643
Other	1.285	4.892	1.394	5.424	1.232	4.623	1.030	5.104	1.030	6.518
Total	5.302	12.677	6.339	16.592	5.623	13.342	5.704	14.948	5.882	20.229

Source: EUMOFA elaboration of data from Global Trade Atlas – IHS Markit. *Up to and including November 2022.

4.3 Trade flows with the EU

EU exports to China

In 2021, the EU exported 152.154 tonnes of FAPs to China at a value of EUR 490.582 million (Table 25). Compared to export volume and value in 2020, this was a 23% and 15% decrease respectively. During the first eleven months of 2022, the EU exported 155.766 tonnes of FAPs to China at a value of EUR 671 million. Compared to the same period in 2021 and 2020, this represented an 8% increase and a 17% decrease in volume respectively, and a 46% and 21% increase in value respectively.

The main export destinations for FAPs from the EU in 2022 were Norway (8%), the UK (7%) and Nigeria (7%), followed by China (5%)⁴¹. The most important MCSs exported in terms of volume were salmon (13%), other products⁵⁷ (7%), herring (7%) and other non-food use⁵⁸ (7%). In terms of value, the most important MCSs exported were salmon (28%), cod (7%), other marine fish⁵⁹ (5%) and other products (4%).

The main MCSs exported to China in 2022 were Greenland halibut (23% of total exports) from Denmark (78% of halibut exports) and Spain (18%), coldwater shrimp (21% of total exports) from Denmark (91% of shrimp exports), blue whiting (12% of total exports) from the Netherlands (98% of blue whiting exports), and cod (11% of total exports) from the Netherlands (59% of cod exports) and Denmark (38%). Greenland halibut and coldwater shrimp were the most valuable MCSs, accounting for 30% and 28% of total export value respectively, followed by cod (11% of total value), and squid (4% of total value) from Spain (99% of squid exports). All products mentioned were exported whole/gutted and frozen, except for a small portion of cod exports (5%), which were exported as whole salted fish, prepared/preserved or frozen other cuts, and fresh or frozen fillets.

Table 25. **TOTAL EXPORTS FROM EU MS TO CHINA (volume in tonnes, value in 1.000 EUR)**

EU MS	2018		2019		2020		2021		2022*	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Denmark	65.726	253.886	70.081	308.108	72.675	270.421	68.818	261.563	76.058	389.202
Netherlands	72.476	141.013	79.270	217.090	89.156	177.516	45.204	80.415	42.057	102.550
Spain	13.095	60.565	24.795	99.709	15.998	57.863	14.212	60.328	20.006	84.284
Ireland	13.054	46.596	15.993	43.136	4.706	12.605	12.988	28.518	7.726	24.034
Estonia	973	4.283	2.374	5.982	3.211	8.820	3.553	6.992	2.028	10.750
Germany	6.177	18.394	7.345	16.830	4.431	16.819	2.542	27.160	1.897	16.410
France	2.919	23.137	3.076	25.117	3.038	22.516	2.436	7.269	3.791	18.170
Portugal	2.403	7.796	4.327	12.935	1.940	6.224	1.004	14.073	1.149	19.480
Poland	1.339	3.711	1.080	1.477	783	604	751	670	348	630
Italy	531	2.762	267	1.368	418	1.200	251	1.029	299	2.278
Other	506	3.483	554	4.403	569	2.858	396	2.566	406	2.876
Total	179.197	565.625	209.162	736.155	196.926	577.447	152.154	490.582	155.766	670.664

Source: EUMOFA elaboration of data from Eurostat-Comext.

*Up to and including November.

⁵⁷ This was an aggregation of five CN items, namely 030399 (frozen fish fins, heads, tails, maws and other edible fish offal), 030579, 030572 (fish heads, tails, maws and other edible fish offal), 030299, and 030292 (fresh fish fins, heads, tails, maws and other edible fish offal and fresh shark fins).

⁵⁸ This was an aggregation of five CN items, namely 230990 (fish or marine mammal solubles), 051191 (products of fish and crustaceans, molluscs or other aquatic invertebrates), 121229 (seaweeds and other algae, unfit for human consumption), 030119, and 030111 (unidentified live ornamental fish).

⁵⁹ This was an aggregation of 16 CN items, namely 030199 (unspecified live fish), 030249, 030289 (unidentified fresh fish, excl. fish offal), 030359, 030389 (unidentified frozen fish, excl. fish offal), 030449, 030459, 030489, 030499 (fresh and frozen fillets and meat from unidentified fish), 030539, 030549, 030554, 030559 (fillets salted, dried or in brine and smoked fillets from unidentified fish), 160419, and 160420 (unidentified fish whole or in pieces).

EU imports from China

In 2021 the EU imported 378.523 tonnes of FAPs from China at a value of EUR 1,4 billion (Table 26). This was a decrease in import volume of 11% and value of 10% compared to 2020. In 2022 (up to and including November), the EU imported 257.325 tonnes of FAPs at a value of 1,7 billion from China. Compared to the same period in 2021, this represented a 3% and 35% increase in volume and value respectively. Compared to 2020, this represented a decrease of 12% in import volume and an increase of 15% in import value.

The main countries of origin for FAPs imported to the EU in 2022 were Norway (21%), China (5%), Iceland (4%), and Ecuador (4%)⁴¹. The most important MCSs imported in terms of volume were other non-food use (24%), salmon (12%), cod (10%), and miscellaneous shrimp (6%). In terms of value, the most important MCSs exported were salmon (26%), cod (14%), miscellaneous shrimp (13%), and other groundfish (6%).

In 2022, Alaska pollock (31%), cod (9%), skipjack tuna (8%), and squid (7%) were the main MCSs imported to the EU from China in terms of volume, while Alaska pollock (23%), cod (12%), salmon (8%), squid (8%), and skipjack tuna (7%) were the most valuable MCSs imported. Most Alaska pollock products were imported to the EU as frozen fillets (98% Alaska pollock imports), with entry points in Germany (64%), France (13%), and Poland (10%). Spain (73%) and Portugal (16%) were the main entry points to the EU for prepared/preserved fillets of Skipjack tuna (99% of Skipjack tuna imports). Cod products were mainly imported as frozen fillets (89% of cod imports) through Germany (26%), Spain (24%) and France (14%). Products in the MCSs other cephalopods and squids were mainly imported frozen whole (97% and 99% of total imports for each MCS respectively). Other cephalopods entered the EU through Spain (49%), Greece (13%), and Italy (8%), while squids entered the EU through Spain (45%), Italy (19%), and the Netherlands (9%). Germany (33%), the Netherlands (18%), France (16%) and Spain (15%) were the main entry points for imports of frozen salmon fillets (97% of salmon imports) to the EU.

Table 26. **TOTAL IMPORTS BY EU MS FROM CHINA (volume in tonnes, value in 1.000 EUR)**

EU MS	2018		2019		2020		2021		2022*	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Germany	111.851	339.880	125.360	445.390	105.045	362.762	95.589	314.425	94.964	399.104
Spain	113.600	456.707	122.505	456.532	106.590	386.810	87.473	342.620	86.321	419.486
France	46.833	179.404	46.367	197.070	45.090	173.103	39.427	148.082	39.902	205.193
Netherlands	35.972	156.822	39.521	188.523	35.704	152.315	29.392	121.040	27.998	153.068
Portugal	29.906	95.099	27.929	93.265	23.699	71.190	25.026	69.579	23.748	91.151
Italy	29.059	98.721	27.643	98.650	22.327	78.626	25.370	98.473	23.715	119.322
Poland	34.571	78.859	39.011	102.424	37.311	102.934	31.034	87.918	21.587	77.134
Belgium	16.713	67.413	20.471	86.194	17.755	71.717	16.930	72.773	11.396	54.586
Sweden	11.203	49.846	10.061	45.612	8.065	36.502	6.508	28.502	7.181	40.388
Greece	8.561	25.125	8.512	25.097	6.741	18.544	6.686	17.103	6.802	23.870
Other	17.658	75.056	19.384	90.673	19.044	65.514	15.089	68.461	13.711	83.968
Total	455.925	1.622.932	486.764	1.829.430	427.369	1.520.018	378.523	1.368.976	357.325	1.667.270

Source: EUMOFA elaboration of data from Eurostat-Comext. *Up to and including November.

4.4 Consumption

China is the largest consumer of FAPs in the world and in 2019 consumed 36% of all products available for consumption (excluding algae)⁶⁰. The Chinese market demand for FAPs grew rapidly after China's economic reform and opening-up in 1978⁶¹. Chinese dietary preferences are varied, affected by regional factors such as distance to sea and urbanisation, and sociodemographic factors such as income, lifestyle, age, traditions and habits⁶¹. The increase in consumption of FAPs that has occurred in China since the 1978 reform is unevenly distributed between regions and within populations. Regions which are distant to large bodies of water (central and western China) generally have a lower consumption of FAPs compared to eastern coastal areas, where production of these products is high. In 2020, estimated per capita consumption of FAPs in

⁶⁰ FAO. The state of world fisheries and aquaculture 2022. Note that estimates are based on available seafood for consumption, and likely overestimate actual consumption.

⁶¹ Zhang, H. et al. (2021). Seafood consumption patterns and affecting factors in urban China: a field survey from six cities. *Aquaculture Reports*. DOI 10.1016/j.aqrep.2021.100608.

rural and urban households was 10,3 kg and 16,6 kg respectively⁴². In the period 2015-2019, consumption of FAPs grew faster in rural areas than in urban areas (due to more disposable income) and consumers in rural areas are expected to drive the increase in consumption in China in the years ahead⁴³. Various types of fish are the most consumed FAPs in Chinese households, since they are generally cheaper and more readily available than products such as shrimps, shellfish, and molluscs⁶¹. Families in north-eastern and western regions of China consume more fish than families in other regions, where more expensive types of FAPs are increasingly popular. The shift in Chinese preferences towards high quality and value-added FAPs can be attributed to factors such as improved food availability through imports, urbanisation, increased incomes and changes in lifestyle⁶².

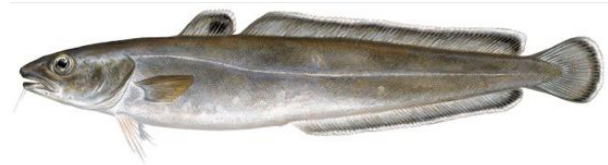
⁶² Crona, B., et al. (2020). China at a crossroads: an analysis of China's changing seafood production and consumption. *One Earth*. DOI [10.1016/j.oneear.2020.06.013](https://doi.org/10.1016/j.oneear.2020.06.013).

5. Case study: Ling in the EU

Ling species are often caught as by-catch of fisheries targeting other cod-like demersal such as in northeast Atlantic fishing grounds. Ling is mostly marketed fresh as fillets but also salted or dried. In 2020, EU-27 catches of ling species reached 6.812 tonnes whereas EU landings in the EU-27 amounted to 5.062 tonnes at a total value of EUR 11 million. The EU market also imports ling from the UK and Norway. France is the main EU market for ling.

5.1 Biology resource and exploitation

Biology



Source: *Scandinavian Fishing Yearbook*

The ling is a demersal fish of the Lotidae family, a group of cod-like fishes. There are three main ling species: the common ling (*Molva molva*), the blue ling (*Molva dypterygia*) and the Spanish ling (*Molva macrophthalma*).

The common ling is the largest member of the family Lotidae. It is found from the Barents Sea to the northern Atlantic, mainly in Europe and the Mediterranean Basin. It is

a demersal, solitary and benthic species which hides among rocks, crevices and wrecks, and lives at depths of 15 to 600 m or more, most commonly from 100 m to 400 m. It feeds primarily on fish (cod, herring, flatfish) and crustaceans. The maximum age is 10 years for males and 14 for females, and it can reach 200 cm in total length and 30 kg in weight. Both the male and female ling are sexually mature at around 5–6 years old and will spawn from July to March.

The blue ling is usually smaller (70 to 110 cm long), found at depths between 350 and 500 m and reaches sexual maturity at the age of 6 to 12 years⁶³.

Resource, exploitation, and management in the EU

In general, the gears used to catch ling are bottom trawls, longlines, gillnets, and handlines⁶⁴. EU vessels catch ling mainly with longlines or nets in open sea, in mixed fisheries, and with other groundfish species; or as by-catch, typically when the main target is Atlantic cod⁶⁵.

Ling stocks are managed by the EU alone or in cooperation with third countries, such as Norway. Management includes yearly precautionary fishing quotas established based on independent scientific advice received from the International Council for the Exploration of the Sea (ICES). There is a minimum conservation reference size of 63 cm in the North Sea and Southwestern waters⁶⁶. In 2021, the sum of EU quotas for combined ling stocks amounted to 13.617 tonnes⁶⁷.

Ling is marketed in fresh, salted, or dried forms, and is also used for fishmeal production. The salted roe of ling is considered a delicacy in Spain⁶⁸.

⁶³ <https://fishbase.net.br/summary/Molva-dypterygia.html>

⁶⁴ https://fish-commercial-names.ec.europa.eu/fish-names/species_en?sn=23153#commdes

⁶⁵ <http://www.fao.org/fishery/species/2220/en>

⁶⁶ Regulation (EU) 2019/1241 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R1241&from=EN>

⁶⁷ https://fish-commercial-names.ec.europa.eu/fish-names/species_en?sn=23153#commdes

⁶⁸ <http://www.playasdetrafalgar.com/comer/5-delicatessen-tipicas-de-la-zona/>

5.2 Production

Catches

Global production of ling species amounted to 44.798 tonnes in 2020. Common ling (*Molva molva*) accounted for 90% of the total catches whereas the blue ling (*M. dypterygia*) accounted for 10% of global catches.

In 2020, the leading producer by volume was Norway, accounting for 42% of global catches. Other main producers were the Faroe Islands (16%), the EU (15%), Iceland (14%) and the UK (13%). The main EU countries in terms of catch volumes were France, Spain, Denmark and Ireland, accounting for 97% of total EU catches.

Between 2011 and 2020, global catches of ling species decreased (-12%). Specifically, catches decreased in Iceland (-58%), and to a lesser extent in the EU and Faroe Islands (-6% each), whereas catches increased in Norway (+16%) and the UK (+18%). The decrease in catches by the EU fleet can be partly explained by the decrease of TACs and quotas for blue ling and common ling due to several depleted stocks⁶⁹. From 2019 to 2020, EU ling catches declined by 15%. Comparable decreasing trends between 2019 and 2020 can also be observed in other countries outside EU (UK, Norway and Iceland) except for the Faroe Islands where catches increased in 2020.

Table 27. **TOTAL WORLD CATCHES OF LING SPECIES⁷⁰ (volume in tonnes live weight equivalent)**

Country	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Norway	16.139	16.050	15.814	17.080	18.132	18.347	18.725	21.959	22.891	18.707
EU 27	7.217	6.981	7.670	7.570	6.024	6.845	6.927	7.483	8.006	6.812
Faroe Islands	7.813	8.362	6.297	8.823	6.643	6.103	6.445	6.395	6.873	7.342
Iceland	14.673	14.831	12.931	13.955	13.257	9.518	8.333	7.262	7.411	6.184
UK	4.814	4.713	4.811	5.182	4.974	5.734	6.369	6.536	6.587	5.681
Russian Federation	19	50	118	88	124	112	151	129	61	42
Others	3	52	2	4	74	13	11	18	22	21
Total	50.703	51.039	47.658	52.716	49.241	46.682	46.971	49.793	51.863	44.798

Source: FAO.

Landings in the EU

In 2020, landings of ling species in the EU-27 amounted to 5.062 tonnes (in net weight) at a total value of EUR 11 million. EU landings mainly consisted of fresh landings which accounted for 99% of the total volume and value, while the rest was landed frozen.

In 2020, France was the main landing country, accounting for 43% of the total EU landing volumes. Other main landing countries were Spain (20%), Denmark (19%), and Ireland (16%).

From 2011 to 2020, EU-27 landings of ling species decreased by 31% in volume and 37% in value in real terms⁷¹, due to the significant decrease in landings in the main landing countries (France, Spain, and Ireland). However, Denmark experienced an increase in landing volumes of ling (25% over the decade), but then a fall in 2020 compared to 2019.

⁶⁹ https://oceans-and-fisheries.ec.europa.eu/fisheries/rules/fishing-quotas_en#documents

⁷⁰ Including: Blue ling (*Molva dypterygia*), Ling (*Molva molva*), Lings nei (*Molva* spp), Spanish Ling (*Molva macrophthalma*).

⁷¹ Values are deflated by using the GDP deflator (base=2015).

Table 28. **LANDINGS OF LING SPECIES IN THE EU (volume in tonnes in net weight)⁷²**

COUNTRY	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
France	3.706	3.320	3.346	3.326	2.890	3.199	1.859	827	712	2.201
Spain	1.353	2.292	2.088	1.832	1.642	1.755	2.018	824	998	1.027
Denmark	752	603	748	623	705	1.000	1.352	1.467	1.391	938
Ireland	1.363	1.649	681	1.080	1.079	1.558	1.118	467	1.050	820
Others	152	149	114	130	82	79	110	78	80	76
Total	7.326	8.011	6.976	6.991	6.398	7.591	6.458	3.662	4.231	5.062

Source: EUMOFA based on Eurostat.

5.3 Ling: first sales in the EU

Ling first sale data were available for all the main EU landing countries except for Ireland. In 2021, ling first sales in reporting countries amounted to 6.344 tonnes at a value of around EUR 13 million and an average price of 2,06 EUR/kg. Among the reporting countries, France accounted for most first-sale volumes (77%). In 2020, first-sale volumes decreased in France and Denmark, probably due to disruption linked to the Covid-19 crisis, which affected fisheries activities and seafood markets. However, first-sale volumes in Spain increased compared to 2019. In 2021, first-sales volumes rebounded in France (+14%) whereas they fell in Denmark (-24%) and Spain (-54%).

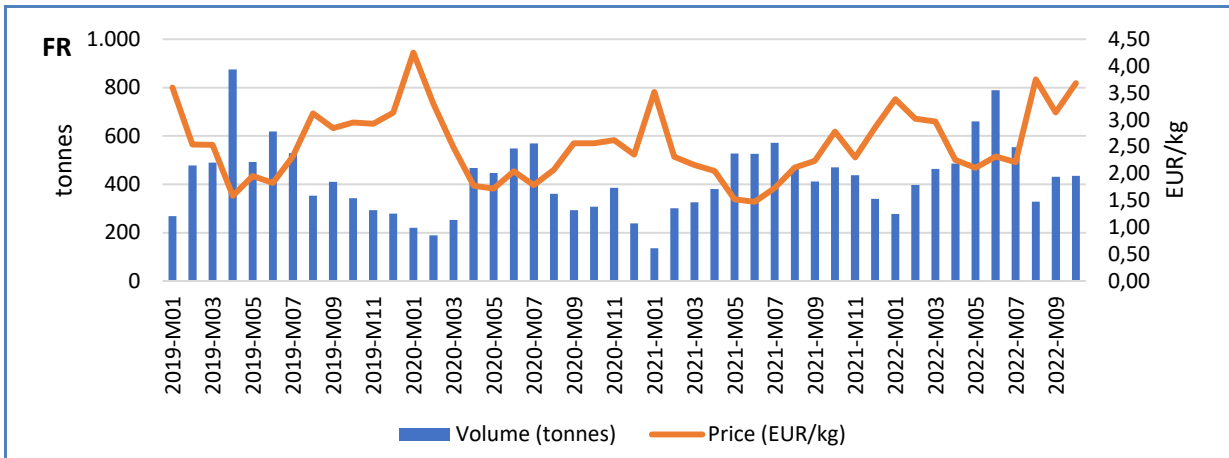
In **France** and **Spain**, first sale data showed a high seasonality, with the majority of first sales occurring during spring and summer (mainly between April and July). Over the 2019-2022 period (up to September 2022), monthly French first-sales volumes peaked at 875 tonnes in April 2019. The variation in first sale prices always seems to be correlated to first sale volumes, with prices peaking each year (in January-February) when volumes are at their lowest levels, and low prices in spring and summer during the high-volume season. In **Spain** an unusual price peak was reached in May 2022, at 3,88 EUR/kg, probably due to much lower volumes than usual at this time of the year. In **Denmark**, first-sale data is not available for 2022. Over the 2019-2021 period, the seasonality of volumes and prices is less obvious, with volumes peaking in March 2019 and lower in the autumn.

Prices recorded in France between January 2019 and September 2022 (2,40 EUR/kg on average) were higher than prices recorded in other main MS (2,02 EUR/kg in Denmark and 2,16 EUR/kg in Spain).

First-sales of ling seem to be concentrated in a few main ports. In 2021, the most important places of sale for ling in volume terms were Lorient (77% of total FS volumes at national level), Hanstholm in Denmark (75%), and Pasajes in Spain (61%).

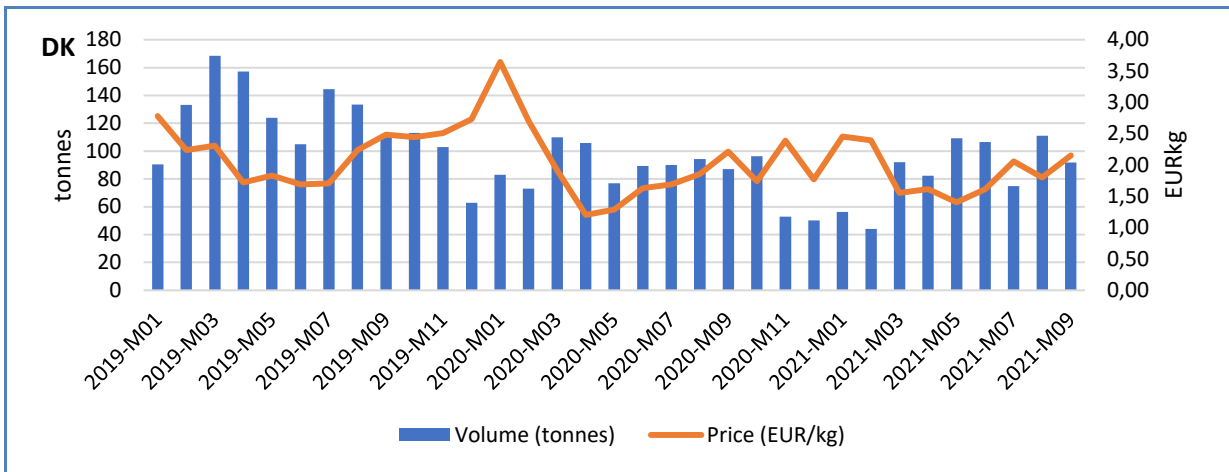
⁷² Totals do not correspond exactly to actual sums because of roundings.

Figure 45. **FIRST SALES: LING IN FRANCE**



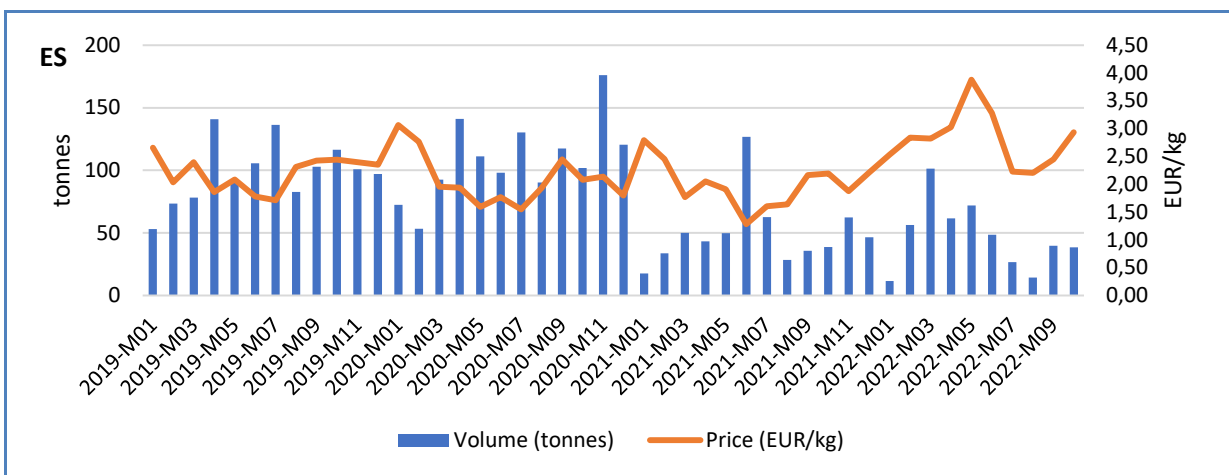
Source: EUMOFA.

Figure 46. **FIRST SALES: LING IN DENMARK**



Source: EUMOFA.

Figure 47. **FIRST SALES: LING IN SPAIN**



Source: EUMOFA.

5.4 International trade

EU trade flows and supply

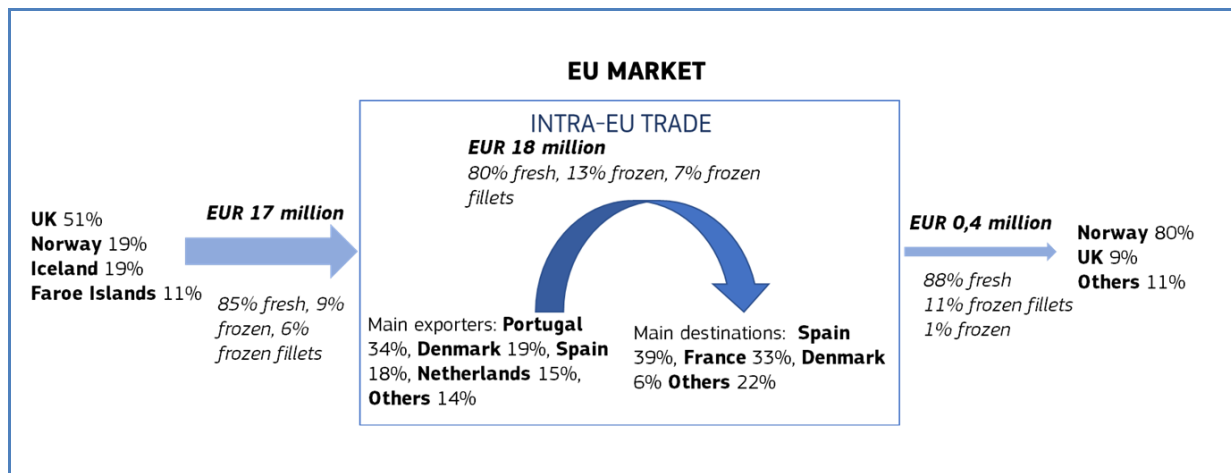
In the CN nomenclature⁷³ used for registering EU import-export data, ling was specifically reported as whole fish, fresh or chilled, and frozen, whole fish or in fillets⁷⁴.

In 2021, the EU-27 trade deficit for ling products amounted to EUR 17 million. In the same year, the EU-27 imported 8.263 tonnes of ling at a value of EUR 17 million, mostly fresh (85% of the imports value). The major provider of ling to the EU market was the UK, accounting for 51% of the extra-EU import value, followed by Norway and Iceland (19% each), and the Faroe Islands (11%). France received 43% of the ling extra-EU imports value, being the main entry point for ling in the EU market.

In the same year, EU exports to third countries amounted to 156 tonnes at a value of EUR 0,4 million. Fresh ling accounted for 88% of the total extra-EU export value whereas frozen ling fillets represented 11% of the total. The main destination in value terms was Norway, accounting for 80% of the total extra-EU export value, followed by the UK (9%). This is likely to correspond to EU vessels landing their catch in these countries which are next to the fishing grounds. About 76% of these extra-EU exports originated in Denmark.

In 2021, intra-EU exports amounted to 6.641 tonnes of ling products at a value of EUR 18 million. The intra-EU trade was dominated by fresh products, which accounted for 80% of the trade value, followed by frozen ling (13%) and frozen fillets (7%). The main exporting countries within the EU were Portugal (34% of the intra-EU export value) and Denmark (19%), followed by Spain (18%) and the Netherlands (15%). A significant share of these intra-EU flows may be landings in other MS than the flag of the vessels. Spain (39% of the total intra-EU export value) and France (33%) were the main destinations for the intra-EU exports.

Figure 48. THE LING EU-TRADE MARKET IN 2021, IN VALUE



Source: EUMOFA elaboration of EUROSTAT-COMEXT data.

⁷³ The Combined Nomenclature (CN) is the EU's eight-digit coding system, comprising the Harmonised System (HS) codes with further EU subdivisions. It serves the EU's common customs tariff and provides statistics for trade within the EU and between the EU and the rest of the world.

⁷⁴ 03025940 Fresh or chilled ling "Molva spp.", 03036980 Frozen ling "Molva spp.", 03047980 Frozen fillets of ling "Molva spp.".

6. Global highlights

High seas / Biodiversity: On 4 March at the **5th Intergovernmental Conference in New York**, global negotiations concluded on the landmark Treaty of the High Seas to protect the ocean, tackle environmental degradation, fight climate change, and prevent biodiversity loss. The new treaty will allow to establish large-scale marine protected areas on the high seas, which are also necessary to meet the global commitment of the **Kunming-Montreal Global Biodiversity Agreement** concluded last December to protect at least 30% of the ocean by 2030. The EU and its Member States have been leading the **Biodiversity Beyond National Jurisdiction High Ambition Coalition** which played a key role in reaching the agreement⁷⁵.



EU / USA / Biodiversity: The United States of America has announced its intention to join the **High Ambition Coalition on Biodiversity Beyond National Jurisdiction**. The coalition, launched by the EU at the One Ocean Summit in Brest in 2022, now gathers 51 parties.

EU / Data Network: On 25 January 2023 the European Marine Observation and Data Network (EMODnet), supported by the European Commission, launched its fully unified marine data service, integrating all the data into **one single portal**. Rapid access to reliable and accurate data and information is vital in addressing threats to the marine environment, in the development of policies and legislation to protect vulnerable areas of our coasts and oceans, as well as in understanding trends and in forecasting future changes. The new portal will benefit all marine data users, including policy makers, researchers, scientists, private industry, and anyone interested⁷⁶.

Canada / Marine Protection: The Canadian government has announced that it will establish 10 new national marine conservation areas as part of its plan to safeguard 30 percent of its lands and seas by 2030. The announcement was made during the 5th International Marine Protected Area Congress held on 3-9 February 2023 in Vancouver, British Columbia⁷⁷.

Portugal / Fisheries: The new Maritime Traffic Control Centre of Portugal is expected to be fully up and running in August 2023, allowing the services of the Maritime Traffic Control Centre and the Fisheries Monitoring Centre to be integrated in the same space, with new control and surveillance competencies. The Maritime Control Centre will be a major control centre with the capacity to respond in an integrated manner to the surveillance and monitoring of navigation and in supporting the Portuguese naval fleet. It also responds to the challenges associated with the Integrated Maritime Policy of the European Union, under the responsibilities of Portugal⁷⁸.

Iceland / Fishery: The total fish catch of Icelandic vessels in January 2023 was 110.000 tonnes compared to 220.000 tonnes in January 2022. Of demersal species cod was about 20.000 tonnes and from pelagic species blue whiting was 72.000 tonnes. In the 12-month-period from February 2022 to January 2023 the overall catch was 1,3 million tonnes, which is the same amount as that caught in the same period one year earlier⁷⁹.

⁷⁵ https://ec.europa.eu/commission/presscorner/detail/en/IP_23_1382

⁷⁶ https://oceans-and-fisheries.ec.europa.eu/news/european-marine-observation-and-data-network-emodnet-launches-its-fully-unified-marine-data-service-2023-01-25_en

⁷⁷ <https://www.fao.org/in-action/globefish/news-events/trade-and-market-news/q1-2023-jan-mar/en/>

⁷⁸ <https://www.portugal.gov.pt/en/gc23/communication/news-item?i=new-control-centre-improves-surveillance-of-the-sea-under-portuguese-responsibility>

⁷⁹ <https://www.statice.is/publications/news-archive/fisheries/fish-catch-in-january-2023/>

7. Macroeconomic Context

7.1. Marine fuel

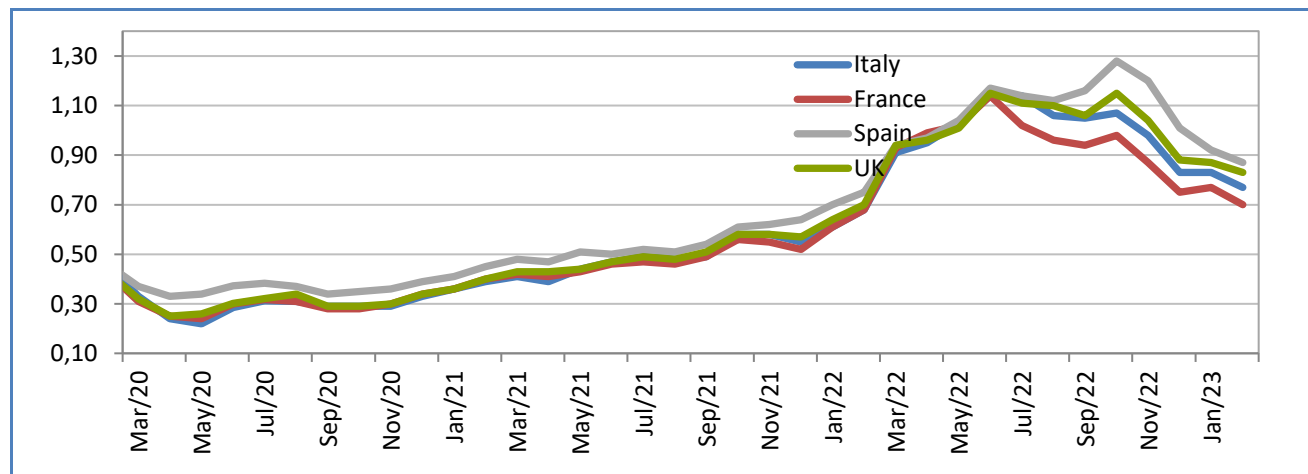
Average prices for marine fuel **February 2023** ranged from 0,70 to 0,87 EUR/litre in ports in **France, Italy, Spain** and the **UK**. Average prices decreased by 6,5% compared with the previous month and increased by an average of 12,8% compared with the same month in 2021.

Table 29. **AVERAGE PRICE OF MARINE DIESEL IN ITALY, FRANCE, SPAIN, AND THE UK (EUR/litre)**

Member State	Feb 2023	Change from Jan 2023	Change from Feb 2022
France <i>(ports of Lorient and Boulogne)</i>	0,70	-9%	3%
Italy <i>(ports of Ancona and Livorno)</i>	0,77	-7%	13%
Spain <i>(ports of A Coruña and Vigo)</i>	0,87	-5%	16%
The UK <i>(ports of Grimsby and Aberdeen)</i>	0,83	-5%	19%

Source: Chamber of Commerce of Forlì-Cesena, Italy; DPMA, France; MABUX.

Figure 49. **AVERAGE PRICE OF MARINE DIESEL IN ITALY, FRANCE, SPAIN, AND THE UK (EUR/litre)**

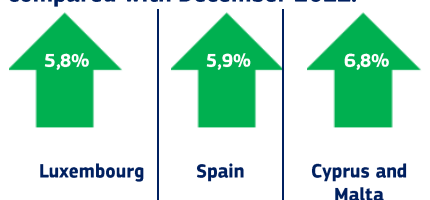


Source: Chamber of Commerce of Forlì-Cesena, Italy; DPMA, France; MABUX.

7.2. Consumer prices

In January 2023 the EU annual inflation rate was 10%, down from 10,4% in December 2022. A year earlier, the rate was 5,6%.

Inflation: Lowest rates in January 2023, compared with December 2022.



Inflation: Highest rates in January 2023, compared with December 2022.

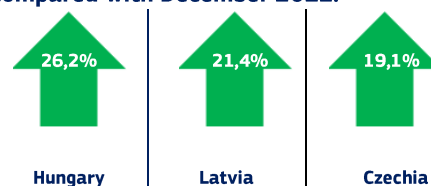


Table 30. HARMONISED INDEX OF CONSUMER PRICES IN THE EU (2015 = 100)

	Jan 2021	Jan 2022	Dec 2022	Jan 2023	Change from Dec 2022		Change from Jan 2022	
Food and non-alcoholic beverages	109,70	114,92	133,49	135,59	↑	1,6%	↑	18,0%
Fish and seafood	114,49	119,51	132,90	136,12	↑	2,4%	↑	13,9%

Source: Eurostat.

7.3. Exchange rates

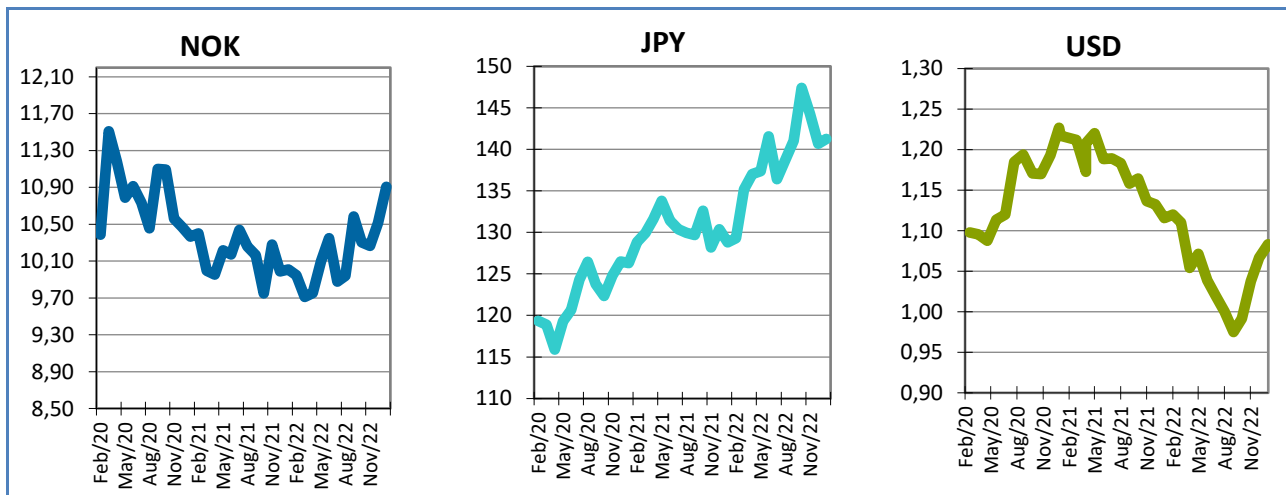
Table 31. EURO EXCHANGE RATES FOR SELECTED CURRENCIES

Currency	Jan 2021	Jan 2022	Dec 2022	Jan 2023
NOK	10,3661	10,0085	10,5138	10,9083
JPY	126,31	128,79	140,66	141,27
USD	1,2171	1,1156	1,0666	1,0833

Source: European Central Bank.

In January 2023, the euro appreciated against the US dollar (1,6%), the Norwegian krone (3,8%), and the Japanese yen (0,4%), relative to the previous month. For the past six months, the euro has fluctuated around 10,4187 against the NOK. Compared with January 2022, the euro has appreciated by 9,7% against the Japanese yen and 9,0% against the Norwegian krone, whereas it depreciated by 2,9% against the US dollar.

Figure 50. TREND OF EURO EXCHANGE RATES



Source: European Central Bank.

Manuscript completed in March 2023

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PDF ISBN 978-92-76-98538-9 ISSN 2314-9671 KL-AK-23-003-EN-N doi.10.2771/5572

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This report has been compiled using EUMOFA data and the following sources:

First sales: EUR-Lex, DG MARE- European Commission, mapa.gob.es,

Consumption: EUROPANEL, FishBase, EUMOFA.

Case studies: Britannica, FAO, Statista, Agriculture and Agri-Food Canada, Qingdao Marine Conservation Society, China dialogue ocean, Fish and Fisheries, ODI, Science Advances, Science, Marine Policy, Environmental Research Letters, IntraFish, Aquaculture Reports, One Earth, FAO, Eurostat, Fishbase, DG MARE, Los Caños de Meca, Eumofa, Scandinavian Fishing Yearbook

Global highlights: European Commission, Government of Portugal, Statistics Iceland.

Macroeconomic context: EUROSTAT, Chamber of Commerce of Forlì-Cesena, Italy: DPMA, France: MABUX, European Central Bank.

The underlying first-sales data is in an annex available on the EUMOFA website. Analyses are made at aggregated (main commercial species) level and according to the EU Electronic recording and reporting system (ERS).

In the context of this Monthly Highlight, analyses are led in current prices and expressed in nominal values.

The **European Market Observatory for Fisheries and Aquaculture Products (EUMOFA)** was developed by the European Commission, representing one of the tools of the new Market Policy in the framework of the reform of the Common Fisheries Policy. [Regulation (EU) No 1379/2013 art. 42].

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